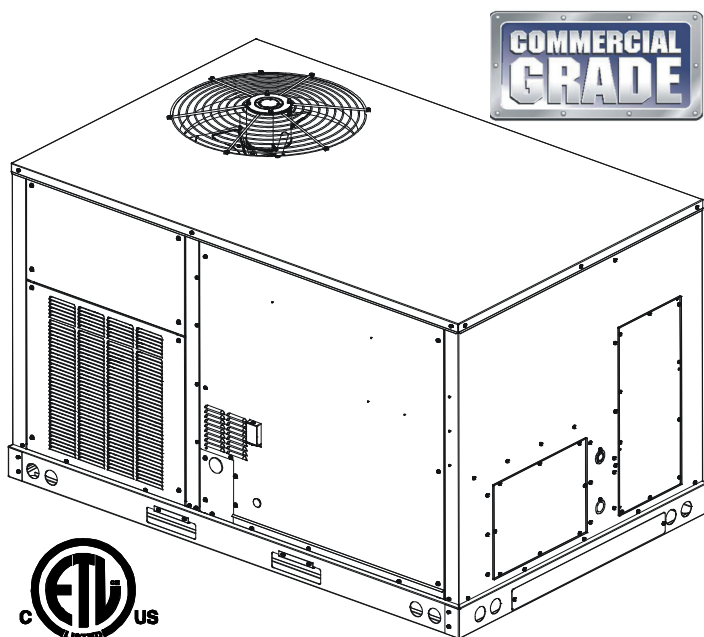




PACKAGED GAS / ELECTRIC UNIT 3-6 Ton High Efficiency Light Commercial DRG Models INSTALLATION INSTRUCTIONS



This forced air central unit design complies with requirements embodied in The American National Standard / National Standard of Canada **ANSI Z21.47-CSA-2.3 Gas-fired central furnaces.**

**WARNING**

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE, MAINTENANCE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT.

THIS EQUIPMENT IS NOT INTENDED FOR USE BY PERSONS (INCLUDING CHILDREN) WITH REDUCED PHYSICAL, SENSORY OR MENTAL CAPABILITIES, OR LACK OF EXPERIENCE AND KNOWLEDGE, UNLESS THEY HAVE BEEN GIVEN SUPERVISION OR INSTRUCTION CONCERNING USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.

CHILDREN SHOULD BE SUPERVISED TO ENSURE THAT THEY DO NOT PLAY WITH THE EQUIPMENT.

THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SUPERVISION, SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER SUPERVISION, INSTALLATION, ADJUSTMENT, SERVICING, MAINTENANCE OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER SUPERVISION OR TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

**WARNING**

DO NOT BYPASS SAFETY DEVICES

Our continuing commitment to quality products may mean a change in specifications without notice.

©2019-2020, 2022-2023 **DAIKIN COMFORT TECHNOLOGIES MANUFACTURING, L.P.**

IOD-1031H
11/2023

19001 Kermier Rd., Waller, TX 77484

www.daikincomfort.com



INDEX

SAFETY INSTRUCTIONS.....	2
REPLACEMENT PARTS.....	3
GENERAL INFORMATION.....	4
CLEARANCES.....	6
ROOF CURB POST-INSTALLATION CHECKS.....	7
ROOF TOP DUCT CONNECTIONS.....	7
RIGGING DETAILS.....	7
WEIGHTS AND CENTER OF GRAVITY.....	8
ELECTRICAL WIRING.....	8
GAS SUPPLY PIPING.....	10
PROPANE GAS INSTALLATIONS.....	12
CIRCULATING AIR AND FILTERS.....	13
CONDENSATE DRAIN CONNECTION.....	13
STARTUP, ADJUSTMENTS, AND CHECKS.....	14
AIR FLOW ADJUSTMENTS.....	15
GAS SYSTEM CHECK.....	16
NORMAL SEQUENCE OF OPERATION.....	19
MAINTENANCE.....	22
TROUBLESHOOTING.....	23
APPENDIX A BLOWER PERFORMANCE TABLES.....	25
APPENDIX B ELECTRICAL DATA.....	51
APPENDIX C UNIT DIMENSIONS.....	53
APPENDIX D MIN-MAX AIRFLOW.....	54
WIRING DIAGRAMS.....	55
STARTUP CHECKLIST.....	59

SAFETY INSTRUCTIONS



RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION

These installation instructions cover the outdoor installation of single package heating and cooling units. See the Specification Sheet applicable to your model for information regarding accessories.

***NOTE: PLEASE CONTACT YOUR DISTRIBUTOR OR OUR WEBSITE FOR THE APPLICABLE SPECIFICATION SHEET REFERRED TO IN THIS MANUAL.**

TO THE INSTALLER

Before installing this unit, please read this manual to familiarize yourself on the specific items which must be adhered to, including maximum external static pressure to unit, air temperature rise, minimum or maximum CFM and motor speed connections.

Keep this literature in a safe place for future reference.



WARNING

IF THE INFORMATION IN THESE INSTRUCTIONS IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

- DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS AND LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

- WHAT TO DO IF YOU SMELL GAS:

- **DO NOT TRY TO LIGHT ANY APPLIANCE.**
- **DO NOT TOUCH ANY ELECTRICAL SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.**
- **IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE. FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS. IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.**

- INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER, SERVICE AGENCY OR THE GAS SUPPLIER.



WARNING

TO PREVENT THE RISK OF PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH, DO NOT STORE COMBUSTIBLE MATERIALS OR USE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR VAPORS IN THE VICINITY OF THIS APPLIANCE.



WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, TURN OFF THE MANUAL GAS SHUTOFF VALVE EXTERNAL TO THE FURNACE BEFORE TURNING OFF THE ELECTRICAL SUPPLY.



CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.



WARNING

DO NOT CONNECT TO OR USE ANY DEVICE THAT IS NOT DESIGN CERTIFIED BY THE MANUFACTURER FOR USE WITH THIS UNIT. SERIOUS PROPERTY DAMAGE, PERSONAL INJURY, REDUCED UNIT PERFORMANCE AND/OR HAZARDOUS CONDITIONS MAY RESULT FROM THE USE OF SUCH NON-APPROVED DEVICES.



WARNING

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DO NOT USE THIS UNIT IF ANY PART HAS BEEN UNDER WATER. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE FURNACE AND TO REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL HAVING BEEN UNDER WATER.



WARNING

THIS UNIT MUST NOT BE USED AS A "CONSTRUCTION HEATER" DURING THE FINISHING PHASES OF CONSTRUCTION ON A NEW STRUCTURE. THIS TYPE OF USE MAY RESULT IN PREMATURE FAILURE OF THE UNIT DUE TO EXTREMELY LOW RETURN AIR TEMPERATURE AND EXPOSURE TO CORROSIVE OR VERY DIRTY ATMOSPHERES.



WARNING

**HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE
SERVICING OR INSTALLING THIS UNIT.
MULTIPLE POWER SOURCES MAY BE
PRESENT. FAILURE TO DO SO MAY CAUSE
PROPERTY DAMAGE, PERSONAL INJURY OR
DEATH.**



DANGER PELIGRO



CARBON MONOXIDE POISONING HAZARD

Special Warning for Installation of Furnace or Air Handling Units in Enclosed Areas such as Garages, Utility Rooms or Parking Areas

Carbon monoxide producing devices (such as an automobile, space heater, gas water heater, etc.) should not be operated in enclosed areas such as unventilated garages, utility rooms or parking areas because of the danger of carbon monoxide (CO) poisoning resulting from the exhaust emissions. If a furnace or air handler is installed in an enclosed area such as a garage, utility room or parking area and a carbon monoxide producing device is operated therein, there must be adequate, direct outside ventilation.

This ventilation is necessary to avoid the danger of CO poisoning which can occur if a carbon monoxide producing device continues to operate in the enclosed area. Carbon monoxide emissions can be (re)circulated throughout the structure if the furnace or air handler is operating in any mode.

CO can cause serious illness including permanent brain damage or death.

B10259-216

RIESGO DE INTOXICACIÓN POR MONÓXIDO DE CARBONO

Advertencia especial para la instalación de calentadores y manejadoras de aire en áreas cerradas como estacionamientos o cuartos de servicio.

Los equipos ó aparatos que producen monóxido de carbono (tal como automóvil, calentador de gas, calentador de agua por medio de gas, etc) no deben ser operados en áreas cerradas debido al riesgo de envenenamiento por monóxido de carbono (CO) que resulta de las emisiones de gases de combustión. Si el equipo ó aparato se opera en dichas áreas, debe existir una adecuada ventilación directa al exterior.

Esta ventilación es necesaria para evitar el peligro de envenenamiento por CO, que puede ocurrir si un dispositivo que produce monóxido de carbono sigue operando en el lugar cerrado.

Las emisiones de monóxido de carbono pueden circular a través del aparato cuando se opera en cualquier modo.

El monóxido de carbono puede causar enfermedades severas como daño cerebral permanente ó muerte.

B10259-216

RISQUE D'EMPOISONNEMENT AU MONOXYDE DE CARBONE

Avertissement special au sujet de l'installation d'appareils de chauffage ou de traitement d'air dans des endroits clos, tels les garages, les locaux d'entretien et les stationnements.

Evitez de mettre en marche les appareils produisant du monoxyde de carbone (tels que les automobile, les appareils de chauffage autonome, etc.) dans des endroits non ventilés tels que les d'empoisonnement au monoxyde de carbone. Si vous devez faire fonctionner ces appareils dans un endroit clos, assurez-vous qu'il y ait une ventilation directe provenant de l'exterieur.

Cette ventilation est nécessaire pour éviter le danger d'intoxication au CO pouvant survenir si un appareil produisant du monoxyde de carbone continue de fonctionner au sein de la zone confinée.

Les émissions de monoxyde de carbone peuvent être recirculées dans les endroits clos, si l'appareil de chauffage ou de traitement d'air sont en marche.

Le monoxyde de carbone peut causer des maladies graves telles que des dommages permanents au cerveau et même la mort.

B10259-216

REPLACEMENT PARTS

ORDERING PARTS

When reporting shortages or damages, or ordering repair parts, give the complete unit model and serial numbers as stamped on the unit's nameplate.

Replacement parts for this appliance are available through your contractor or local distributor. Location of your local distributor can be found at www.daikinac.com or contact:

EQUIPMENT SUPPORT
Daikin Comfort Technologies Manufacturing, L.P.
19001 Kermier Road
Waller, Texas 77484
855-770-5678

GENERAL INFORMATION



WARNING

TO PREVENT PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DUE TO FIRE, EXPLOSIONS, SMOKE, SOOT, CONDENSATION, ELECTRIC SHOCK OR CARBON MONOXIDE, THIS UNIT MUST BE PROPERLY INSTALLED, REPAIRED, OPERATED, AND MAINTAINED.

This unit is approved for outdoor installation ONLY.

Rated performance is achieved after 20 hours of operation. Rated performance is delivered at the specified airflow. See product specification sheet for light commercial models. Specification sheets can be found at www.daikinac.com for Daikin brand products. Within the website, please select the light commercial products menu and then select the submenu for the type of product to be installed, such as air conditioners or heat pumps, to access a list of product pages that each contain links to that model's specification sheet.

To assure that your unit operates safely and efficiently, it must be installed, operated, and maintained in accordance with these installation and operating instructions, all local building codes and ordinances, or in their absence, with the latest edition of the National Fuel Gas Code NFPA54/ANSI Z223.1 and National Standard of Canada CAN/CSA B149 Installation Codes. In situations where these conflict, local codes take precedence.

EPA REGULATIONS

IMPORTANT: THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA) HAS ISSUED VARIOUS REGULATIONS REGARDING THE INTRODUCTION AND DISPOSAL OF REFRIGERANTS IN THIS UNIT. FAILURE TO FOLLOW THESE REGULATIONS MAY HARM THE ENVIRONMENT AND CAN LEAD TO THE IMPOSITION OF SUBSTANTIAL FINES. BECAUSE REGULATIONS MAY VARY DUE TO PASSAGE OF NEW LAWS, WE SUGGEST A CERTIFIED TECHNICIAN PERFORM ANY WORK DONE ON THIS UNIT. SHOULD YOU HAVE ANY QUESTIONS PLEASE CONTACT THE LOCAL OFFICE OF THE EPA.

NATIONAL CODES

This product is designed and manufactured to permit installation in accordance with National Codes. It is the installer's responsibility to install the product in accordance with National Codes and/or prevailing local codes and regulations.

The heating and cooling capacities of the unit should be greater than or equal to the design heating and cooling loads of the area to be conditioned. The loads should be calculated by an approved method or in accordance with ASHRAE Guide or Manual J - Load Calculations published by the Air Conditioning Contractors of America.

Obtain from:

American National Standards Institute
25 West 43rd Street, 4th Floor
New York, NY 10036

System design and installation should also, where applicable, follow information presented in accepted industry guides such as the ASHRAE Handbooks. The manufacturer assumes no responsibility for equipment installed in violation of any local codes. The mechanical installation of the packaged roof top units consists of making final connections between the unit and building services; supply and return duct connections; and drain connections (if required). The internal systems of the unit are completely factory-installed and tested prior to shipment.

Units are generally installed on a steel roof mounting curb assembly which has been shipped to the job site for installation on the roof structure prior to the arrival of the unit. The model number shown on the unit's identification plate identifies the various components of the unit such as refrigeration tonnage, heating output and voltage.

Carefully inspect the unit for damage including damage to the cabinetry. Any bolts or screws which may have loosened in transit must be re-tightened.

In the event of damage, the receiver should:

1. Make notation on delivery receipt of any visible damage to shipment or container.
2. Notify the carrier promptly and request an inspection.
3. In case of concealed damage, the carrier should be notified as soon as possible-preferably within 5 days.
4. File the claim with the following supporting documents:
 - a. Original Bill of Lading, certified copy, or indemnity bond.
 - b. Original paid freight bill or indemnity in lieu thereof.
 - c. Original invoice or certified copy thereof, showing trade and other discounts or reductions.
 - d. Copy of the inspection report issued by carrier representative at the time damage is reported to the carrier. The carrier is responsible for making prompt inspection of damage and for a thorough investigation of each claim. The distributor or manufacturer will not accept claims from dealers for transportation damage.

NOTE: WHEN INSPECTING THE UNIT FOR TRANSPORTATION DAMAGE, REMOVE ALL PACKAGING MATERIALS. RECYCLE OR DISPOSE OF THE PACKAGING MATERIAL ACCORDING TO LOCAL CODES.

PRE-INSTALLATION CHECKS

Carefully read all instructions for the installation prior to installing unit. Ensure each step or procedure is understood and any special considerations are taken into account before starting installation. Assemble all tools, hardware and supplies needed to complete the installation. Some items may need to be purchased locally.

NOTE: VERIFY THAT THE VOLTAGE LISTED ON THE UNIT DATA PLATE MATCHES THE VOLTAGE SUPPLIED BY THE BUILDING UTILITIES.



WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

IMPORTANT NOTE: REMOVE WOOD SHIPPING RAILS PRIOR TO INSTALLATION OF THE UNIT.

ALL INSTALLATIONS:

IMPORTANT NOTE: UNIT SHOULD BE ENERGIZED 24 HOURS PRIOR TO COMPRESSOR START UP TO ENSURE CRANKCASE HEATER HAS SUFFICIENTLY WARMED THE COMPRESSORS. COMPRESSOR DAMAGE MAY OCCUR IF THIS STEP IS NOT FOLLOWED.

NOTE: APPLIANCE IS SHIPPED FROM FACTORY FOR VERTICAL DUCT APPLICATION.

Proper installation of the unit ensures trouble-free operation. Improper installation can result in problems ranging from noisy operation to property or equipment damages, dangerous conditions that could result in injury or personal property damage and that are not covered by the warranty. Give this booklet to the user and explain its provisions. The user should retain these instructions for future reference.

- For proper flame pattern within the heat exchanger and proper condensate drainage, the unit must be mounted level.
- The flue outlet must be at least 12 inches from any opening through which flue gases could enter a building, and at least three feet above any forced air inlet located within ten feet. The economizer/manual fresh air intake/motorized fresh air intake and combustion air inlet mounted on the unit are not affected by this restriction.
- To avoid possible corrosion of the heat exchanger, do not locate the unit in an area where the outdoor air (i.e. combustion air for the unit) will be frequently contaminated by compounds containing chlorine or fluorine. Common sources of such compounds include swimming pool chemicals and chlorine bleaches, paint stripper, adhesives, paints, varnishes, sealers, waxes (which are not yet dried) and solvents used during construction and remodeling. Various commercial and industrial processes may also be sources of chlorine/fluorine compounds.
- The unit shall not be connected to a chimney flue serving a separate appliance designed to burn solid fuel.
- To avoid possible illness or death of the building occupants, do NOT locate outside air intake device (economizer, manual fresh air intake, motorized fresh air intake) too close to an exhaust outlet, gas vent termination, or plumbing vent outlet. For specific distances required, consult local codes.

- Allow minimum clearances from the enclosure for fire protection, proper operation, and service access (see unit clearances). These clearances must be permanently maintained.
- The combustion air inlet and flue outlet on the unit must never be obstructed. If used, do not allow the economizer/manual fresh air damper/motorized fresh air damper to become blocked by snow or debris. In some climates or locations, it may be necessary to elevate the unit to avoid these problems.
- When the unit is heating, the temperature of the return air entering the unit must be a minimum of 55° F.

GROUND LEVEL INSTALLATIONS ONLY:

- When the unit is installed on the ground adjacent to the building, a level concrete (or equal) base is recommended. Prepare a base that is 3" larger than the package unit footprint and a minimum of 3" thick.
- The base should also be located where no runoff of water from higher ground can collect in the unit.

ROOF TOP INSTALLATIONS ONLY:

- To avoid possible property damage or personal injury, the roof must have sufficient structural strength to carry the weight of the unit(s) and snow or water loads as required by local codes. Consult a structural engineer to determine the weight capabilities of the roof.
- The unit may be installed directly on wood floors or on Class A, Class B, or Class C roof covering material.
- To avoid possible personal injury, a safe, flat surface for service personnel should be provided.
- As indicated on the unit data plate, a minimum clearance of 36" to any combustible material is required on the furnace access side of the unit. All combustible materials must be kept out of this area.
- This 36" clearance must also be maintained to insure proper combustion air and flue gas flow. The combustion air intake and furnace flue discharge must not be blocked for any reason, including blockage by snow.
- Adequate clearances from the furnace flue discharge to any adjacent public walkways, adjacent buildings, building openings or openable windows must be maintained in accordance with the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54.
- Minimum horizontal clearance of 48" from the furnace flue discharge to any electric meters, gas meters, regulators and relief equipment is required.

UNIT PRECAUTIONS

- Do not stand or walk on the unit.
- Do not drill holes anywhere in panels or in the base frame of the unit except where indicated. Unit access panels provide structural support.
- Do not remove any access panels until unit has been installed on roof curb or field supplied structure.
- Do not roll unit across finished roof without prior approval of owner or architect.

- Do not skid or slide on any surface as this may damage unit base. The unit must be stored on a flat, level surface. Protect the condenser coil because it is easily damaged.

ROOF CURB INSTALLATIONS ONLY:

Curb installations must comply with local codes and should be done in accordance with the established guidelines of the National Roofing Contractors Association.

Proper unit installation requires that the roof curb be firmly and permanently attached to the roof structure. Check for adequate fastening method prior to setting the unit on the curb.

Full perimeter roof curbs are available from the factory and are shipped unassembled. Field assembly, squaring, leveling and mounting on the roof structure are the responsibility of the installing contractor. All required hardware necessary for the assembly of the sheet metal curb is included in the curb accessory.



WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

- Sufficient structural support must be determined prior to locating and mounting the curb and package unit.
- Ductwork must be constructed using industry guidelines. The duct work must be placed into the roof curb before mounting the package unit. Our full perimeter curbs include duct connection frames to be assembled with the curb. Cantilevered type curbs are not available from the factory.
- Curb insulation, cant strips, flashing and general roofing material are furnished by the contractor.
- The curbs must be supported on parallel sides by roof members.
- The roof members must not penetrate supply and return duct opening areas as damage to the unit might occur.

NOTE: THE UNIT AND CURB ACCESSORIES ARE DESIGNED TO ALLOW VERTICAL DUCT INSTALLATION BEFORE UNIT PLACEMENT. DUCT INSTALLATION AFTER UNIT PLACEMENT IS NOT RECOMMENDED.

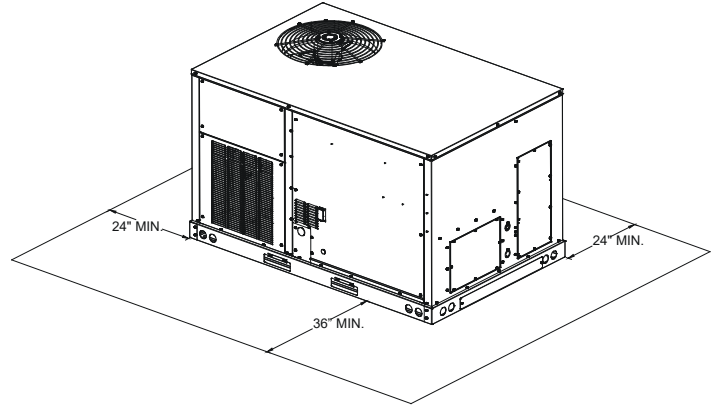


CAUTION

ALL CURBS LOOK SIMILAR. TO AVOID INCORRECT CURB POSITIONING, CHECK JOB PLANS CAREFULLY AND VERIFY MARKINGS ON CURB ASSEMBLY. INSTRUCTIONS MAY VARY IN CURB STYLES AND SUPERSEDES INFORMATION SHOWN.

See the manual shipped with the roof curb for assembly and installation instructions.

CLEARANCES



UNIT CLEARANCES

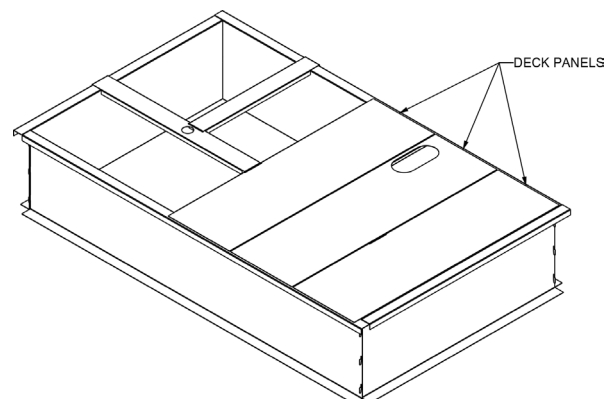
**In situations that have multiple units, a 36" minimum clearance is required between the condenser coils.*

Adequate clearance around the unit should be kept for safety, service, maintenance, and proper unit operation. A clearance of 48" is recommended on all sides of the unit to facilitate possible parts replacement, to allow service access and to insure proper ventilation and condenser airflow. The top of the unit should be completely unobstructed. If units are to be located under an overhang, there should be a minimum of 48" clearance and provisions made to deflect the warm discharge air out from the overhang. The unit should be installed remote from all building exhausts to inhibit ingestion of exhaust air into the unit fresh air intake.

NOTE: IF THE 36" MINIMUM CLEARANCE IS USED ON THE CONTROL PANEL SIDE OF A DRG UNIT, A FLUE EXTENSION KIT NEEDS TO BE INSTALLED TO PREVENT FLUE GAS RECIRCULATION. SEE TABLE BELOW FOR THE KIT SELECTION.

Model size	Kit part number
3 ton	HEFLUE036
4 & 5 ton	HEFLUE048060
6 ton	HEFLUE072

FLUE EXTENSION KITS



ROOF CURB INSTALLATION

ROOF CURB POST-INSTALLATION CHECKS

After installation, check the top of the curb, duct connection frame and duct flanges to make sure gasket has been applied properly. Gasket should be firmly applied to the top of the curb perimeter, duct flanges and any exposed duct connection frame. If gasket is loose, re-apply using strong weather resistant adhesive.

PROTRUSION

Inspect curb to ensure that none of the utility services (electric) routed through the curb protrude above the curb.

NOTE: IF FASTENERS ARE USED TO SECURE THE DUCT WORK TO THE CURB, THESE SHOULD BE INSTALLED HORIZONTALLY INTO THE FLANGES OF THE DUCT OPENING OF THE CURB.



CAUTION

IF PROTRUSIONS EXIST, DO NOT ATTEMPT TO SET UNIT ON CURB.

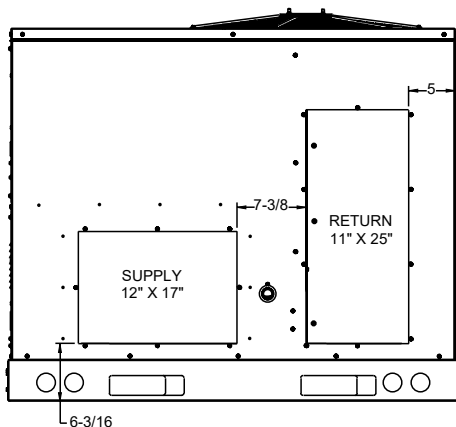
ROOF TOP DUCT CONNECTIONS

Install all duct connections on the unit before placing the unit on rooftop.

HORIZONTAL DISCHARGE

Refer to IOD-7082 included in the literature pack for installing horizontal duct covers.

Flexible duct connectors between the unit and ducts are recommended. Insulate and weatherproof all external ductwork and joints as required and in accordance with local codes.



HORIZONTAL DISCHARGE DUCT CONNECTIONS

RIGGING DETAILS



WARNING

TO PREVENT PROPERTY DAMAGE, THE UNIT SHOULD REMAIN IN AN UPRIGHT POSITION DURING ALL RIGGING AND MOVING OPERATIONS. TO FACILITATE LIFTING AND MOVING WHEN A CRANE IS USED, PLACE THE UNIT IN AN ADEQUATE CABLE SLING.



CAUTION

IF UNITS ARE LIFTED TWO AT A TIME, THE FORK HOLES ON THE CONDENSER END OF THE UNIT MUST NOT BE USED. MINIMUM FORK LENGTH IS 42" TO PREVENT DAMAGE TO THE UNIT; HOWEVER, 48" IS RECOMMENDED.

PROVISIONS FOR FORKS HAVE BEEN INCLUDED IN THE UNIT BASE FRAME. NO OTHER FORK LOCATIONS ARE APPROVED.



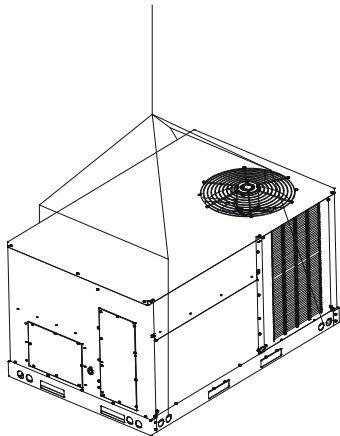
WARNING

TO PREVENT POSSIBLE EQUIPMENT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, THE FOLLOWING BULLET POINTS MUST BE OBSERVED WHEN INSTALLING THE UNIT.

- Unit must be lifted by the four lifting holes located at the base frame corners.
- Lifting cables should be attached to the unit with shackles.
- The distance between the crane hook and the top of the unit must not be less than 60".
- Two spreader bars must span over the unit to prevent damage to the cabinet by the lift cables. Spreader bars must be of sufficient length so that cables do not come in contact with the unit during transport. Remove wood struts mounted beneath unit base frame before setting unit on roof curb. These struts are intended to protect unit base frame from fork lift damage. Removal is accomplished by extracting the sheet metal retainers and pulling the struts through the base of the unit. Refer to rigging label on the unit.

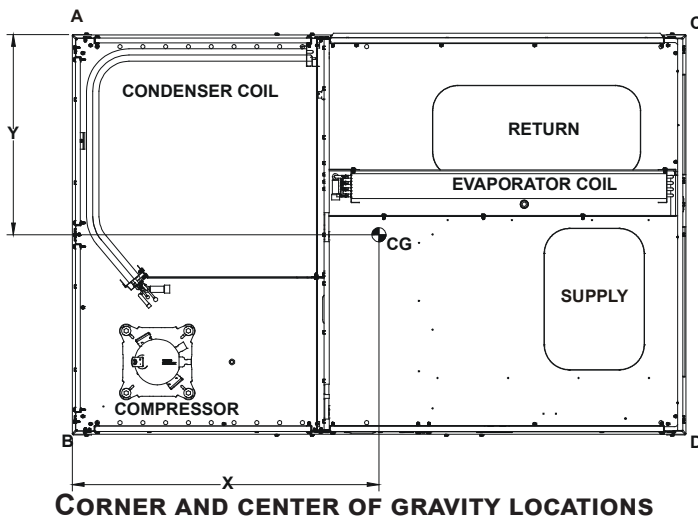
IMPORTANT: IF USING BOTTOM DISCHARGE WITH ROOF CURB, DUCTWORK SHOULD BE ATTACHED TO THE CURB PRIOR TO INSTALLING THE UNIT. DUCTWORK DIMENSIONS ARE SHOWN IN ROOF CURB INSTALLATION INSTRUCTIONS.

Refer to the Roof Curb Installation Instructions for proper curb installation. Curbing must be installed in compliance with the National Roofing Contractors Association Manual.



To assist in determining rigging requirements, unit weights and center of gravity are shown as follows:

WEIGHTS AND CENTER OF GRAVITY



NOTE: UNIT SHOULD BE LIFTED AT A POINT ABOVE CENTER OF GRAVITY.

Model	Shipping Weight (lb)	Operating Weight (lb)	Corner Weights (lb)				X (in)	Y (in)
			A	B	C	D		
DRG036	630	572	104	141	186	141	36.5	27.7
DRG048	705	647	118	231	180	118	36.3	27.9
DRG060	713	655	148	189	135	183	35.8	27.5
DRG072	763	705	122	246	180	157	35.3	27.7

THE NUMBERS MAY SLIGHTLY VARY DEPENDING ON INSTALLED OPTIONS.



CAUTION

TO PREVENT SEVERE DAMAGE TO THE BOTTOM OF THE UNIT, DO NOT FORK LIFT UNIT AFTER WOOD STRUTS HAVE BEEN REMOVED.

Bring condenser end of unit into alignment with the curb first. Lower unit carefully onto roof mounting curb. When a rectangular cantilever curb is used, care should be taken to center the unit. Check for proper alignment and orientation of supply and return openings with duct.

RIGGING REMOVAL



CAUTION

TO PREVENT DAMAGE TO THE UNIT, DO NOT ALLOW CRANE HOOKS AND SPREADER BARS TO REST ON THE ROOF OF THE UNIT.

Remove spreader bars, lifting cables and other rigging equipment.

ELECTRICAL WIRING



WARNING

HIGH VOLTAGE!

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

HIGH VOLTAGE!

TO AVOID PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK, DO NOT TAMPER WITH FACTORY WIRING. THE INTERNAL POWER AND CONTROL WIRING OF THESE UNITS ARE FACTORY-INSTALLED AND HAVE BEEN THOROUGHLY TESTED PRIOR TO SHIPMENT. CONTACT YOUR LOCAL REPRESENTATIVE IF ASSISTANCE IS REQUIRED.



CAUTION

TO PREVENT DAMAGE TO THE WIRING, PROTECT WIRING FROM SHARP EDGES. FOLLOW NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES AND ORDINANCES. DO NOT ROUTE WIRES THROUGH REMOVABLE ACCESS PANELS.



CAUTION

CONDUIT AND FITTINGS MUST BE WEATHER-TIGHT TO PREVENT WATER ENTRY INTO THE BUILDING.

For unit protection, use a fuse or HACR circuit breaker that is in excess of the circuit ampacity, but less than or equal to the maximum overcurrent protection device. DO NOT EXCEED THE MAXIMUM OVERCURRENT DEVICE SIZE SHOWN ON UNIT DATA PLATE.

All line voltage connections must be made through weatherproof fittings. All exterior power supply and ground wiring must be in approved weatherproof conduit.

The main power supply wiring to the unit and low voltage wiring to accessory controls must be done in accordance with these instructions, the latest edition of the National Electrical Code (ANSI/NFPA 70), and all local codes and ordinances.

The unit is factory wired for the voltage shown on the unit's data plate.

NOTE: IF SUPPLY VOLTAGE IS 208V, LEAD ON PRIMARY OF TRANSFORMER(S) MUST BE MOVED FROM THE 230V TO THE 208V TAP. REFER TO WIRING DIAGRAM ON UNIT FOR DETAILS.

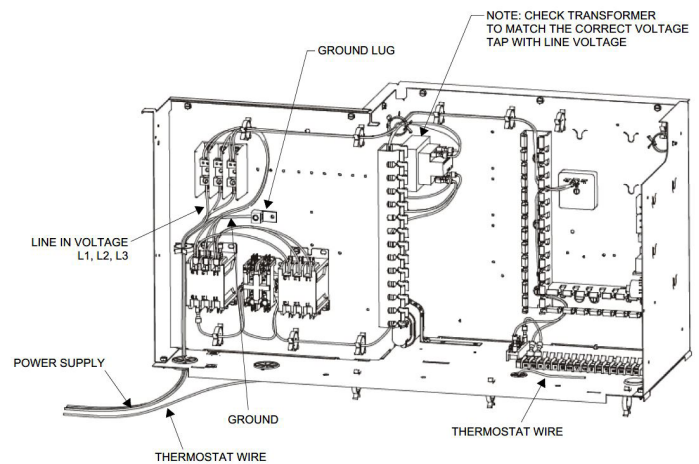
Main power wiring should be sized for the minimum circuit ampacity shown on the unit's dataplate. Size wires in accordance with the ampacity tables in Article 310 of the National Electrical Code. If long wires are required, it may be necessary to increase the wire size to prevent excessive voltage drop. Wires should be sized for a maximum of 3% voltage drop.

 CAUTION
TO AVOID RISK OF PROPERTY DAMAGE, PERSONAL INJURY OR FIRE, USE ONLY COPPER CONDUCTORS.
 CAUTION
TO PREVENT IMPROPER AND DANGEROUS OPERATION DUE TO WIRING ERRORS, LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. VERIFY PROPER OPERATION AFTER SERVICING.

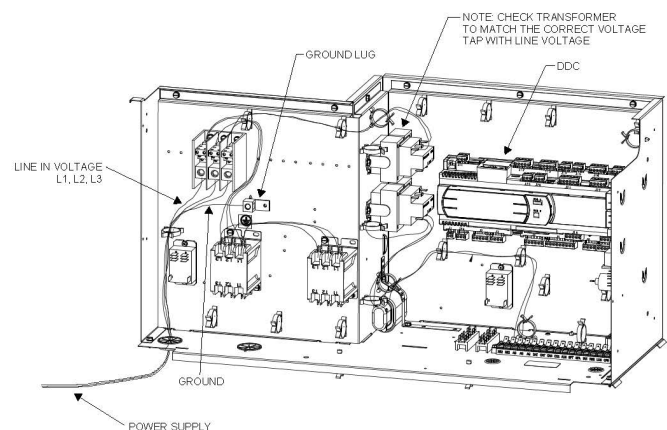
NOTE: A WEATHER-TIGHT DISCONNECT SWITCH, PROPERLY SIZED FOR THE UNIT TOTAL LOAD, MUST BE FIELD OR FACTORY INSTALLED. AN EXTERNAL FIELD SUPPLIED DISCONNECT MAY BE MOUNTED ON THE EXTERIOR PANEL.

Ensure the data plate is not covered by the field-supplied disconnect switch.

- Some disconnect switches are not fused. Protect the power leads at the point of distribution in accordance with the unit data plate.
- The unit must be electrically grounded in accordance with local codes or, in the absence of local codes, with the latest edition of the National Electrical Code ANSI/NFPA 70, and/or the Canadian Electrical Code, CSA C22.1, Part 1. A ground lug is provided for this purpose. Do not use the ground lug for connecting a neutral conductor.
- Connect Power wiring to electrical power block, ground wire ground lug, and thermostat wiring to terminal block within the main control box.



GAS CONTROL BOX



Gas DDC Control Box

NOTE: DEPENDING ON THE OPTIONS INSTALLED, THE LOCATION OF THE COMPONENTS MAY VARY IN SOME MODELS

 WARNING
OPERATING THE UNIT WITH AN IMPROPER LINE VOLTAGE OR WITH EXCESSIVE PHASE UNBALANCE CAN CAUSE DAMAGE TO OR FAILURE OF THE UNIT. SUCH DAMAGE OR FAILURE IS NOT COVERED UNDER THE UNIT'S WARRANTY.

AREAS WITHOUT CONVENIENCE OUTLET

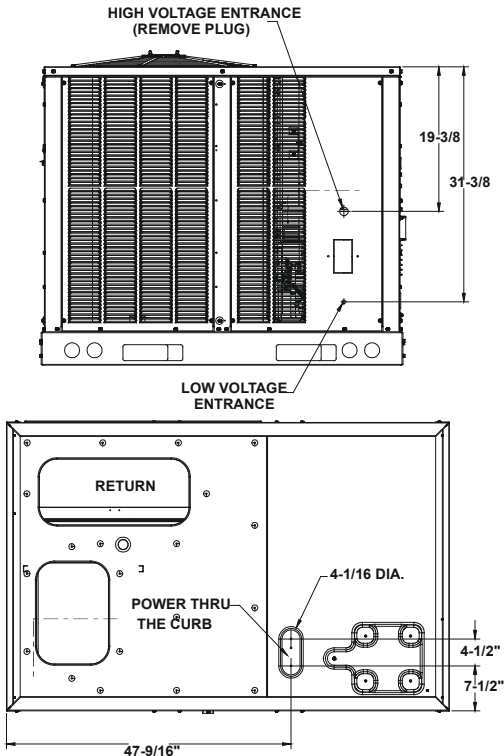
It is recommended that an independent 115V power source be brought to the vicinity of the roof top unit for portable lights and tools used by the service mechanic.

NOTE: REFER TO LOCAL CODES FOR REQUIREMENTS. THESE OUTLETS CAN ALSO BE FACTORY INSTALLED.

UNITS INSTALLED ON ROOF TOPS

Main power and low voltage wiring may enter the unit through the condenser end of unit or through the roof curb. Install conduit connectors at the designated locations. External connectors must be weatherproof. All holes in the unit base must be sealed (including those around conduit nuts) to prevent water leakage into building. All required conduit and fittings are to be field supplied.

Supply voltage to roof top unit must not vary by more than 10% of the value indicated on the unit data plate. Phase voltage unbalance must not exceed 2%. Contact your local power company for correction of improper voltage or phase unbalance.



**ELECTRICAL ENTRANCE AND THRU CURB
(BOTTOM VIEW OF UNIT)**

Low Voltage Control Wiring

1. A 24V thermostat must be installed for unit operation unless the DDC controls option has been installed. (Refer to the DDC Quickstart Guide)
2. Locate thermostat or remote sensor in the conditioned space where it will sense average temperature. Do not locate the device where it may be directly exposed to supply air, sunlight or other sources of heat. Follow installation instructions packaged with the installed device.
3. Use #18 AWG wire for 24V control wiring runs not exceeding 75 feet. Use #16 AWG wire for 24V control wiring runs not exceeding 125 feet. Use #14 AWG wire for 24V control wiring runs not exceeding 200 feet. Low voltage wiring may be National Electrical Code (NEC) Class 2 where permitted by local codes.
4. Route the low voltage control wires from sub-base terminals to the unit. Control wiring should enter through the condenser panel opening or through curb indicated in “Electrical Entrance” figure. Connect thermostat and any accessory wiring to low voltage terminal block TB1 in the main control box.
5. For two-stage heating operation, remove the factory installed jumper connecting W1 and W2 terminals on terminal block.

NOTE: FIELD-SUPPLIED CONDUIT MAY NEED TO BE INSTALLED DEPENDING ON UNIT/CURB CONFIGURATION. USE #18 AWG SOLID CONDUCTOR WIRE WHENEVER CONNECTING THERMOSTAT WIRES TO TERMINALS ON SUB-BASE. DO NOT USE LARGER THAN #18 AWG WIRE. A TRANSITION TO #18 AWG WIRE MAY BE REQUIRED BEFORE ENTERING THERMOSTAT SUB-BASE.

NOTE: REFER TO UNIT WIRING DIAGRAMS FOR THERMOSTAT OR REMOTE SENSOR CONNECTIONS.

GAS SUPPLY PIPING

WARNING

TO PREVENT PERSONAL INJURY OR DEATH DUE TO IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE, REFER TO THIS MANUAL. FOR ADDITIONAL ASSISTANCE OR INFORMATION, CONSULT A QUALIFIED INSTALLER, SERVICER AGENCY OR THE GAS SUPPLIER.

IMPORTANT NOTE: THIS UNIT IS FACTORY SET TO OPERATE ON NATURAL GAS AT THE ALTITUDES SHOWN ON THE RATING PLATE.

WARNING

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH WHEN EITHER USING PROPANE GAS ALONE OR AT HIGHER ALTITUDES, OBTAIN AND INSTALL THE PROPER CONVERSION KIT(S). FAILURE TO DO SO CAN RESULT IN UNSATISFACTORY OPERATION AND/OR EQUIPMENT DAMAGE. HIGH ALTITUDE KITS ARE FOR U.S. INSTALLATIONS ONLY AND ARE NOT APPROVED FOR USE IN CANADA.

The rating plate is stamped with the model number, type of gas and gas input rating. Make sure the unit is equipped to operate on the type of gas available. Conversion to propane (LP) gas is permitted with the use of the factory authorized conversion kit (see the unit Technical Manual for the appropriate kit). For High Altitude derates, refer to the latest edition of the National Fuel Gas Code NFPA 54/ANSI Z223.1 or National Standard of Canada, Natural Gas and Propane Installation Code, CSA B149.1.

INLET GAS PRESSURE	
NATURAL	Min. 5.0" W.C., Max. 10.0" W.C.
PROPANE	Min. 11.0" W.C., Max. 14.0" W.C.

INLET GAS PRESSURE MUST NOT EXCEED MAXIMUM VALUE SHOWN IN TABLE ABOVE.

The minimum supply pressure should not vary from that shown in the table above because this could prevent the

unit from having dependable ignition. In addition, gas input to the burners must not exceed the rated input shown on the rating plate. Overfiring of the unit could result in premature heat exchanger failure.

PIPING

IMPORTANT NOTE: To AVOID POSSIBLE UNSATISFACTORY OPERATION OR EQUIPMENT DAMAGE DUE TO UNDER FIRING OF EQUIPMENT, DO NOT UNDERSIZE THE NATURAL/PROPANE GAS PIPING FROM THE METER/TANK TO THE UNIT. WHEN SIZING A TRUNK LINE, INCLUDE ALL APPLIANCES ON THAT LINE THAT COULD BE OPERATED SIMULTANEOUSLY.

The gas line installation must comply with local codes, or in the absence of local codes, with the latest edition of the National Fuel Gas Code NFPA 54 / ANSI Z223.1.

NATURAL GAS CONNECTION

Natural Gas Capacity of Pipe in Cubic Feet of Gas Per Hour (CFH)					
Length of Pipe in Feet	Nominal Black Pipe Size (inches)				
	1/2	3/4	1	1 1/4	1 1/2
10	132	278	520	1050	1600
20	92	190	350	730	1100
30	73	152	285	590	980
40	63	130	245	500	760
50	56	115	215	440	670
60	50	105	195	400	610
70	46	96	180	370	560
80	43	90	170	350	530
90	40	84	160	320	490
100	38	79	150	305	460

Pressure= .50 PSIG or less and Pressure Drop of 0.3" W.C.
(Based on 0.60 Specific Gravity Gas)

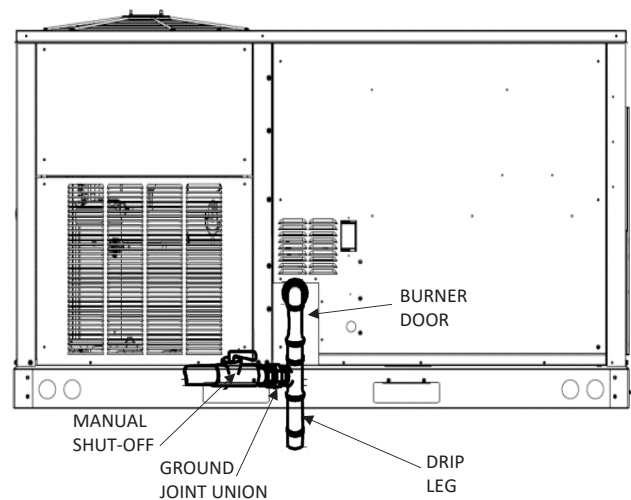
$$\text{CFH} = \frac{\text{BTUH Furnace Input}}{\text{Heating Value of Gas (BTU/Cubic Foot)}}$$

Refer to the Proper Piping Practice drawing for the general layout at the unit. The following rules apply:

1. Use black iron pipe and fittings for the supply piping. The use of a flex connector and/or copper piping is permitted as long as it is in agreement with local codes.
2. Use pipe joint compound on male threads only. Pipe joint compound must be resistant to the action of the fuel used.
3. Use ground joint unions.
4. Install a drip leg to trap dirt and moisture before it can enter the gas valve. The drip leg must be a minimum of three inches long.
5. Use two pipe wrenches when making connection to the gas valve to keep it from turning.
6. Install a manual shut-off valve in a convenient location (within six feet of unit) between the meter and the unit.
7. Tighten all joints securely.
8. The unit must be connected to the building piping by one of the following methods:
 - Rigid metallic pipe and fittings
 - Semirigid metallic tubing and metallic fittings

(Aluminum alloy tubing must not be used in exterior locations).

- Listed gas appliance connectors used in accordance with the terms of their listing that are completely in the same room as the equipment. Always use a new listed connector.
- In the prior two methods above the connector or tubing must be protected from physical and thermal damage. Aluminum alloy tubing and connectors must be coated to protect against external corrosion when in contact with masonry, plaster or insulation or are subject to repeated wettings by liquids (water - not rain water, detergents or sewage).



PROPER PIPING PRACTICE

NOTE: THE UNIT GAS SUPPLY ENTRANCE IS FACTORY SEALED WITH PLUGS. KEEP PLUGS IN PLACE UNTIL GAS SUPPLY IS READY TO BE INSTALLED. ONCE READY, REPLACE THE PLUGS WITH THE SUPPLIED GROMMETS AND INSTALL GAS SUPPLY LINE.

GAS PIPING CHECKS



CAUTION

TO PREVENT PROPERTY DAMAGE OR PERSONAL INJURY DUE TO FIRE, THE FOLLOWING INSTRUCTIONS MUST BE PERFORMED REGARDING GAS CONNECTIONS AND PRESSURE TESTING:

- THE UNIT AND ITS GAS CONNECTIONS MUST BE LEAK TESTED BEFORE PLACING IN OPERATION. BECAUSE OF THE DANGER OF EXPLOSION OR FIRE, NEVER USE A MATCH OR OPEN FLAME TO TEST FOR LEAKS. NEVER EXCEED SPECIFIED PRESSURES FOR TESTING. HIGHER PRESSURE MAY DAMAGE GAS VALVE AND CAUSE OVERFIRING WHICH MAY RESULT IN PREMATURE HEAT EXCHANGE FAILURE.
- THIS UNIT AND ITS SHUT-OFF VALVE MUST BE DISCONNECTED FROM THE GAS SUPPLY DURING ANY PRESSURE TESTING OF THAT SYSTEM AT TEST PRESSURES IN EXCESS OF ½ PSIG (3.48 kPa).
- THIS UNIT MUST BE ISOLATED FROM THE GAS SUPPLY SYSTEM BY CLOSING ITS MANUAL SHUT-OFF VALVE DURING ANY PRESSURE TESTING OF THE GAS SUPPLY PIPING SYSTEM AT TEST PRESSURES EQUAL TO OR LESS THAN ½ PSIG (3.48 kPa).



WARNING

TO AVOID PROPERTY DAMAGE OR PERSONAL INJURY, BE SURE THERE IS NO OPEN FLAME IN THE VICINITY DURING AIR BLEEDING.

There will be air in the gas supply line after testing for leaks on a new installation. Therefore, the air must be bled from the line by loosening the ground joint union until pure gas is expelled. Tighten union and wait for five minutes until all gas has been dissipated in the air. Be certain there is no open flame in the vicinity during air bleeding procedure. The unit is placed in operation by closing the main electrical disconnect switch for the unit.

PROPANE GAS INSTALLATIONS



WARNING

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO FIRE OR EXPLOSION CAUSED BY A PROPANE GAS LEAK, INSTALL A GAS DETECTING WARNING DEVICE. SINCE RUST CAN REDUCE THE LEVEL OF ODORANT IN PROPANE GAS, A GAS DETECTING WARNING DEVICE IS THE ONLY RELIABLE WAY TO DETECT A PROPANE GAS LEAK. CONTACT A LOCAL PROPANE GAS SUPPLIER ABOUT INSTALLING A GAS DETECTING WARNING DEVICE.

IMPORTANT NOTE: PROPANE GAS CONVERSION KITS MUST BE INSTALLED TO CONVERT UNITS TO PROPANE GAS. NOX SCREENS MUST BE REMOVED BEFORE CONVERTING TO LP. REMOVE BURNER ASSEMBLY AND PULL NOX SCREENS FROM EACH BURNER TUBE. WHEN ALL THE SCREENS ARE OUT, REASSEMBLE THE BURNER ASSEMBLY WITHOUT THE SCREENS.

All propane gas equipment must conform to the safety standards of NFPA 58 - Liquefied Petroleum Gas Code.

For satisfactory operation, propane gas pressure must be within 9.7 - 10.3 inches w.c. for high fire at the manifold with all gas appliances in operation. Maintaining proper gas pressure depends on three main factors:

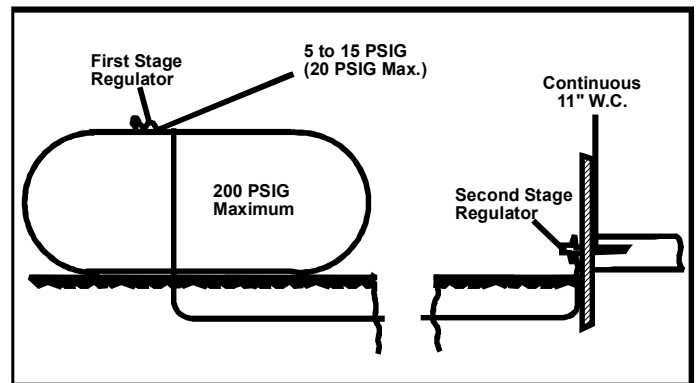
1. Vaporization rate, which depends on (a) temperature of the liquid, and (b) wetted surface area of the container or containers.
2. Proper pressure regulation.
3. Pressure drop in lines between regulators, and between second stage regulator and the appliance. Pipe size required will depend on length of pipe run and total load of all appliances.

TANKS AND PIPING

Complete information regarding tank sizing for vaporization, recommended regulator settings and pipe sizing is available from most regulator manufacturers and propane gas suppliers.

Since propane gas will quickly dissolve white lead or most standard commercial compounds, special pipe dope must be used. Shellac base compounds resistant to the actions of liquefied petroleum gases such as Gasolac®, Stalactic®, Clyde's® or John Crane® are satisfactory.

See the following figure for typical propane gas piping.



TYPICAL PROPANE GAS PIPING

ROOF TOP LOCATION AND INSTALLATION

The gas supply piping location and installation for roof top units must be in accordance with local codes or, in the absence of local codes, with ordinances of the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54.

A manual gas shut off valve must be field installed external to the roof top unit. In addition, a drip leg must be installed near the inlet connection. A ground joint union connection is required between the external shut off valve and the unit connection to the gas valve to permit removal of the burner assembly for servicing.

1. Route gas piping to unit so that it does not interfere with the removal of access panels. Support and align piping to prevent strains or misalignment of the manifold assembly.
2. All units are furnished with standard female 1/2" NPT pipe connections. The size of the gas supply piping to the unit must be based on length of run, number of units on the system, gas characteristics, BTU requirement and available supply pressure. All piping must be done in accordance with local codes or, in the absence of local codes, with the latest edition of the National Fuel Gas Code ANSI Z223.1/NFPA 54.

NOTE: THE GAS CONNECTION SIZE AT THE UNIT DOES NOT ESTABLISH THE SIZE OF THE SUPPLY LINE.

3. These units are designed for either natural or propane (LP) gas and are specifically constructed at the factory for only one of these fuels. The fuels are NOT interchangeable. However, the furnace can be converted in the field from natural gas to LP gas with the appropriate factory kit (see unit Technical Manual for the appropriate kit). Only a qualified contractor, experienced with natural and propane gas systems, should attempt conversion. Kit instructions must be followed closely to assure safe and reliable unit operation.
4. With all units on a common line operating under full fire, natural gas main supply pressure should be adjusted to approximately 7.0" w.c., measured at the unit gas valve. If the gas pressure at the unit is greater than 10.0" w.c., the contractor must furnish and install an external type positive shut off service pressure regulator. The unit will not function satisfactorily if supply gas pressure is less than 5.0" w.c. or greater than 10.0" w.c..

NOTE: A MINIMUM HORIZONTAL DISTANCE OF 48" BETWEEN THE REGULATOR AND THE FURNACE FLUE DISCHARGE IS REQUIRED.

5. With all units on a common line operating under full LP gas main supply pressure should be at least 11.0" w.c. and must be no greater than 13.0" w.c., measured at the unit gas valve. Unit will not function satisfactorily if supply gas pressure is less than 11.0" w.c. or greater than 13.0" w.c..
6. All pipe connections should be sealed with a pipe thread compound, which is resistant to the fuel used with the furnace. A soapy water solution should be used to check all joints for leaks. A tap is located on the entering side of the gas valve for test gauge connection to measure supply (main) gas pressure. Another tap is provided on the manifold side of the gas valve for checking manifold pressure.



WARNING

THIS UNIT AND ITS INDIVIDUAL SHUTOFF VALVE MUST BE DISCONNECTED FROM THE GAS SUPPLY SYSTEM DURING ANY PRESSURE TESTING OF THAT SYSTEM AT TEST PRESSURES IN EXCESS OF ½ PSIG (13.8" w.c.).



CAUTION

THIS UNIT MUST BE ISOLATED FROM THE GAS SUPPLY PIPING SYSTEM BY CLOSING ITS INDIVIDUAL MANUAL SHUTOFF VALVE DURING ANY PRESSURE TESTING EQUAL TO OR LESS THAN ½ PSIG.

7. There must be no obstruction to prevent the flow of combustion and ventilating air. A vent stack is not required and must never be used. The power venter will supply an adequate amount of combustion air as long as the air passageways are kept free of any obstructions and the recommended external unit clearances are maintained.

CIRCULATING AIR AND FILTERS

DUCTWORK

The supply duct from the unit through a wall may be installed without clearance. However, minimum unit clearances must be maintained (see "Clearances" section). The supply duct should be provided with an access panel large enough to inspect the air chamber downstream of the heat exchanger. A cover should be tightly attached to prevent air leaks.

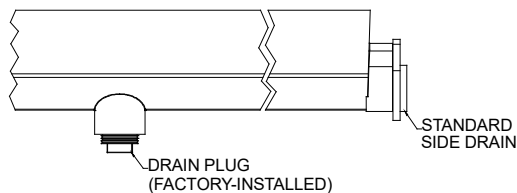
Ductwork dimensions are shown in the roof curb installation manual.

If desired, supply and return duct connections to the unit may be made with flexible connections to reduce possible unit operating sound transmission.

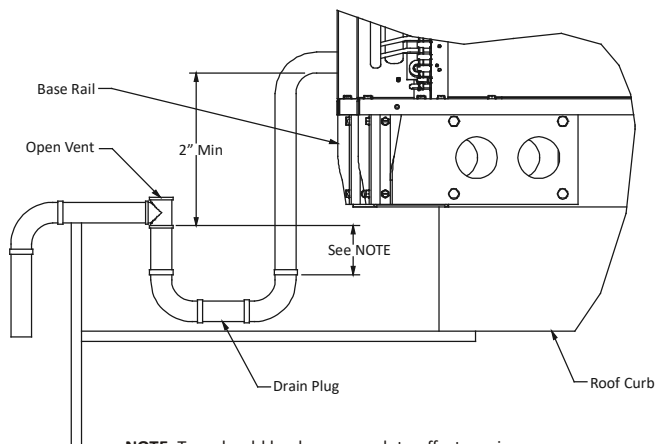
CONDENSATE DRAIN CONNECTION

CONDENSATE DRAIN CONNECTION

A 3/4" female NPT drain connection is supplied on the end of the unit and bottom of the drain pan for condensate piping. An external trap must be installed for proper condensate drainage. Hand tighten drain fitting to the drain connection.



Drain Pan (Side View)



NOTE: Trap should be deep enough to offset maximum unit static difference. A minimum 4" trap is recommended.

DRAIN CONNECTION

Install condensate drain trap as shown. Use 3/4" drain line and fittings or larger. Do not operate without trap.

NOTE: ALL THREADED CONNECTIONS SHOULD BE SEALED WITH THREAD SEALER TO PREVENT LEAKS.

HORIZONTAL DRAIN

Drainage of condensate directly onto the roof may be acceptable; refer to local code. It is recommended that a small drip pad of either stone, mortar, wood or metal be provided to prevent any possible damage to the roof.

VERTICAL DRAIN

To use the bottom drain connection, remove the drain plug from the bottom connection and install it in the horizontal connection.

CLEANING

Due to the fact that drain pans in any air conditioning unit will have some moisture in them, algae and fungus will grow due to airborne bacteria and spores. Periodic cleaning is necessary to prevent this build-up from plugging the drain.

STARTUP, ADJUSTMENTS, AND CHECKS



WARNING

HIGH VOLTAGE!

TO AVOID PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK, BOND THE FRAME OF THIS UNIT TO THE BUILDING ELECTRICAL GROUND BY USE OF THE GROUNDING TERMINAL PROVIDED OR OTHER ACCEPTABLE MEANS. DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT.



PRE-STARTUP INSTRUCTIONS - GENERAL



CAUTION

TO PREVENT PROPERTY DAMAGE OR PERSONAL INJURY, DO NOT START THE UNIT UNTIL ALL NECESSARY PRE-CHECKS AND TESTS HAVE BEEN PERFORMED.

Prior to the beginning of Startup, Adjustments, and Checks procedures, the following steps should be completed in the building.



WARNING

MOVING MACHINERY HAZARD!

TO PREVENT POSSIBLE PERSONAL INJURY OR DEATH, DISCONNECT POWER TO THE UNIT AND PADLOCK IN THE "OFF" POSITION BEFORE SERVICING FANS.



CAUTION

TO PREVENT PROPERTY DAMAGE OR PERSONAL INJURY, DO NOT START THE UNIT UNTIL ALL NECESSARY PRE-CHECKS AND TESTS HAVE BEEN PERFORMED.

This unit is equipped with an electronic ignition device to automatically light the main burners. It also has a power vent blower to exhaust combustion products.

On new installations, or if a major component has been replaced, the operation of the unit must be checked.

Check unit operation as outlined in the following instructions. If any sparking, odors, or unusual sounds are encountered, shut off electrical power and recheck for wiring errors, or obstructions in or near the blower motors.

Duct covers must be removed before operating unit.

The Startup, Adjustments, and Checks procedure provides a step-by-step sequence which, if followed, will assure the proper startup of the equipment in the minimum amount of time. Air balancing of duct system is not considered part of this procedure. However, it is an important phase of any air conditioning system startup and should be performed upon completion of the Startup, Adjustments, and Checks procedure. The Startup, Adjustments, and Checks procedure at outside ambients below 55°F should be

limited to a readiness check of the refrigeration system with the required final check and calibration left to be completed when the outside ambient rises above 55°F.

TEMPORARY HEATING OR COOLING

If the unit is to be used for temporary heating or cooling, a "Startup, Adjustments, and Checks" must first be performed in accordance with this manual. Damage or repairs due to failure to comply with these requirements are not covered under the warranty. **After** the machines are used for temporary heating or cooling, inspect the coils, fans, and motors for unacceptable levels of construction dust and dirt and install new filters.

CONTRACTOR RESPONSIBILITY

The installing contractor must be certain that:

- All supply and return air ductwork is in place, properly sealed, and corresponds with installation instructions.
- All thermostats and sensors are mounted and wired in accordance with installation instructions.
- All electric power, all gas, hot water or steam line connections, and the condensate drain installation have been made to each unit on the job. These main supply lines must be functional and capable of operating all units simultaneously.
- Requirements are met for venting and combustion air.
- Air filters are in place.
- Input rate and temperature rise are adjusted per rating plate.

ROOF CURB INSTALLATION CHECK

Inspect the roof curb for correct installation. The unit and curb assembly should be level. Inspect the flashing of the roof mounting curb to the roof, especially at the corners, for good workmanship. Also check for leaks around gaskets. Note any deficiencies in a separate report and forward to the contractor.

OBSTRUCTIONS, FAN CLEARANCE AND WIRING

Remove any extraneous construction and shipping materials that may be found during this procedure. Rotate all fans manually to check for proper clearances and that they rotate freely. Check for bolts and screws that may have jarred loose during shipment to the job site. Re-tighten if necessary. Re-tighten all electrical connections.

FIELD DUCT CONNECTIONS

Verify that all duct connections are tight and that there is no air bypass between supply and return.

FILTER SECTION CHECK

Remove filter section access panels and check that filters are properly installed. Note airflow arrows on filter frames.

PRE-STARTUP PRECAUTIONS

It is important to your safety that the unit has been properly grounded during installation. Check ground lug connection in main control box for tightness prior to closing circuit breaker or disconnect switch. Verify that supply voltage on line side of disconnect agrees with voltage on unit identification plate and is within the utilization voltage range as indicated in Appendix B Electrical Data.

System Voltage - That nominal voltage value assigned to a circuit or system for the purpose of designating its voltage class.

Nameplate Voltage - That voltage assigned to a piece of equipment for the purpose of designating its voltage class and for the purpose of defining the minimum and maximum voltage at which the equipment will operate.

Utilization Voltage - The voltage of the line terminals of the equipment at which the equipment must give fully satisfactory performance. Once it is established that supply voltage will be maintained within the utilization range under all system conditions, check and calculate if an unbalanced condition exists between phases. Calculate percent voltage unbalance as follows.

THREE PHASE MODELS ONLY

$$3) \text{ PERCENT VOLTAGE UNBALANCE} = 100 \times \frac{2) \text{ MAXIMUM VOLTAGE DEVIATIONS FROM AVERAGE VOLTAGE}}{1) \text{ AVERAGE VOLTAGE}}$$

HOW TO USE THE FORMULA:

EXAMPLE: Line to neutral voltage of 220, 216, and 213

1) Average Voltage = $220 + 216 + 213 = 649 / 3 = 216$

2) Maximum Voltage Deviations from Average Voltage = $220 - 216 = 4$

3) Percent Voltage Unbalance = $100 \times \frac{4}{216} = \frac{400}{216} = 1.8\%$

Percent voltage unbalance MUST NOT exceed 2%.

AIR FLOW ADJUSTMENTS

When the final adjustments are complete, the current draw of the motor should be checked and compared to the full load current rating of the motor. The amperage must not exceed the service factor stamped on the motor nameplate. The total airflow must not be less than that required for operation of the furnace.

If an economizer is installed, check the unit operating balance with the economizer at full outside air and at minimum outside air.

NOTE: NEVER RUN CFM BELOW 300 CFM PER TON, EVAPORATOR FREEZING OR POOR UNIT PERFORMANCE IS POSSIBLE.

CHANGING SPEED TAPS

Adjust the CFM for the unit by changing the position of the low voltage leads on the terminal block TB1. Refer to Appendix A for blower performance at each speed tap. The below tables show the allowable speed taps and the factory locations.

NOTE: X* DENOTES FACTORY SPEED TAP LOCATION. IF MORE THAN ONE LEAD IS ENERGIZED SIMULTANEOUSLY, THE MOTOR WILL RUN AT THE HIGHER SPEED. FOR PROPER OPERATION, PU CANNOT SHARE A TAP WITH YL, BR CANNOT SHARE A TAP WITH WH, AND PU/BR SHOULD HAVE HIGHER SPEED SETTINGS THAN YL/WH, RESPECTIVELY.

DRG0XX1 MODELS ALLOW HIGH HEATING ONLY. EVEN IF THE USER SELECTS LOW STAGE HEATING ON THERMOSTAT, THIS OPERATION WILL NOT BE AVAILABLE.

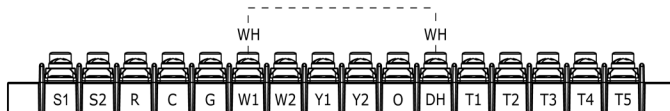
ALLOWABLE SPEED TAPS 3-6 TON STD STATIC GAS					
ID MOTOR TAPS	T1	T2	T3	T4	T5
FAN (BK)	X*	-	-	-	-
COOLING STG 1 (YL)	X*	X	X	X	X
COOLING STG 2 (PU)	-	X	X	X*	X
HEATING STG 1 (WH)	-	X*	X	X	X
HEATING STG 2 (BR)	-	-	X*	X	X

NOTE: FOR MOTORS WITH 10 SPEED TAPS, DH - 0VAC USES SPEED TAPS T1-T5 (FOR COOLING) AND DH=24VAC USES T1'-T5' (FOR HEATING). IN HEATING MODE, W1 AUTOMATICALLY ENERGIZES DH.

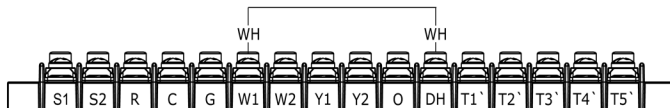
ALLOWABLE SPEED TAPS 3-6 TON HIGH STATIC GAS										
ID MOTOR TAPS	T1	T2	T3	T4	T5	T1'	T2'	T3'	T4'	T5'
FAN (BK)	X*	-	-	-	-	X	-	-	-	-
COOLING STG 1 (YL)	X*	X	X	X	X	-	-	-	-	-
COOLING STG 2 (PU)	-	X	X	X*	X	-	-	-	-	-
HEATING STG 1 (WH)	-	-	-	-	-	X*	X	X	X	X
HEATING STG 2 (BR)	-	-	-	-	-	-	X	X*	X	X

NOTE: ON UNITS WITH DDC CONTROLS INSTALLED, REFER TO THE DDC USER MANUAL FOR DETAILS ON MAKING AIRFLOW ADJUSTMENTS. INDIVIDUAL SETTINGS ARE AVAILABLE FOR FAN ONLY, LOW STAGE COOLING, HIGH STAGE COOLING, LOW STAGE HEATING, AND HIGH STAGE HEATING WHICH CAN BE ADJUSTED AS NEEDED TO MEET AIRFLOW REQUIREMENTS.

W1 NOT ENERGIZED = DH NOT ENERGIZED (T1-T5 ACTIVE)



W1 ENERGIZED = DH ENERGIZED (T1'-T5' ACTIVE)



DRG MODEL WIRING (STANDARD STATIC & HIGH STATIC)

GAS SYSTEM CHECK

PRE-OPERATION CHECKS

1. Close the manual gas valve external to the unit.
2. Turn off the electrical power supply to the unit.
3. Change heating setpoint to its lowest possible setting.
4. Remove the heat exchanger door on the side of the unit by removing screws.
5. This unit is equipped with an ignition device which automatically lights the main burner. DO NOT try to light burner by any other method.
6. Move the gas control valve switch to the OFF position.

7. Wait five minutes to clear out any gas.
8. Smell for gas, including near the ground. This is important because some types of gas are heavier than air. If you have waited five minutes and you do smell gas, immediately follow the warning WHAT TO DO IF YOU SMELL GAS on page 2 of this manual. If having waited for five minutes and no gas smell is noted, move the gas control valve switch to the ON position.
9. Replace the heat exchanger door on the side of the unit.
10. Open the manual gas valve external to the unit.
11. Turn on the electrical power supply to the unit.
12. Change heating setpoint to desired setting.

GAS SUPPLY PRESSURES & REGULATOR ADJUSTMENTS



WARNING

SHOULD OVERHEATING OCCUR OR THE GAS SUPPLY FAIL TO SHUT OFF, TURN OFF THE MANUAL GAS SHUTOFF VALVE EXTERNAL TO THE UNIT BEFORE TURNING OFF THE ELECTRICAL SUPPLY.



WARNING

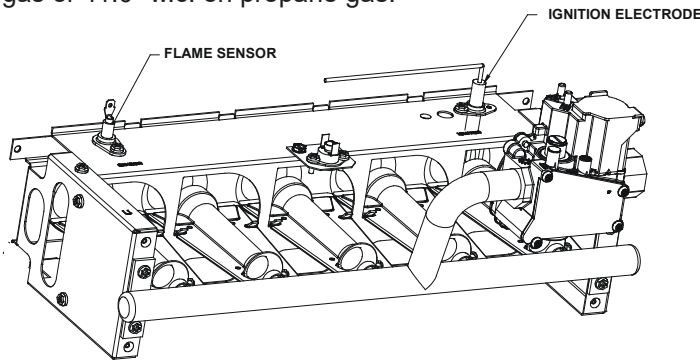
TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH, DO NOT FIRE GAS UNIT WITH FLUE BOX COVER REMOVED.

NOTE: EXCEPT DURING BRIEF PERIODS WHEN GAS PRESSURES ARE BEING MEASURED BY QUALIFIED SERVICE PERSONNEL, THE FURNACE ACCESS PANEL MUST ALWAYS BE SECURED IN PLACE WHEN THE FURNACE IS IN OPERATION. AN INSPECTION PORT IN THE ACCESS PANEL IS PROVIDED TO MONITOR THE FLAME.

The first step in checking out the gas-fired furnace is to test the gas supply piping to the unit for tightness and purge the system of air using methods outlined in the latest edition of the National Fuel Gas Code ANSI Z223.1 / NFPA 54. Verify that the disconnect switch is in the "OFF" position. A soapy water solution should be used to check for gas leaks. Since the unit is subject to considerable jarring during shipment, it is extremely important that all gas connections and joints be tested for tightness. Gas piping downstream from the unit inlet should be checked for leaks during the subsequent sequence check.

The supply gas pressure should be adjusted to 7.0" w.c. on natural gas and 11" to 13.0" w.c. on LP gas with the gas burners operating. If there is more than one unit on a common gas line, the pressures should be checked with all units under full fire. A supply pressure tap is provided on the upstream side of the gas valve. A manifold pressure tap is provided on the manifold side of the gas valve. The normal manifold pressure for High fire is 3.5" w.c. on natural gas and 10.0" w.c. for propane gas. Low fire natural gas 2.0" w.c., 6.0" w.c. low fire propane gas. Minimum gas supply pressure is 5.0" w.c. for natural gas and 11.0" w.c. for propane gas.

Do not attempt adjustment of the built-in pressure regulator unless the supply pressure is at least 5.0" w.c. on natural gas or 11.0" w.c. on propane gas.



FLAME SENSOR AND IGNITION ELECTRODE LOCATION

Ton	High Fire Rate	Number of Burners	NG Orifice	LP Orifice
3	45,000	2	43	55
	70,000	3	43	55
	115,000	6	45	56
4	70,000	3	43	55
	115,000	5	43	55
	140,000	6	43	55
5	70,000	3	43	55
	115,000	5	43	55
	140,000	6	43	55
6	70,000	3	43	55
	125,000	5	41	54
	150,000	6	41	54

HEAT EXCHANGER AND BURNER ORIFICE SPECIFICATIONS
NOTE: GAS APPLIANCES LOCATED MORE THAN 2000 FEET ABOVE SEA LEVEL MUST BE DERATED 4% PER 1000 FEET OF TOTAL ELEVATION AND THAT VARIANCE IN GAS HEATING VALUE AND SPECIFIC GRAVITY REQUIRE CHANGE IN MANIFOLD PRESSURE TO OBTAIN RATING, IT IS MANDATORY THAT THE INPUT BE ADJUSTED AT THE INSTALLATION SITE. ALL INSTALLATIONS SHOULD BE MADE AS OUTLINED IN THE LATEST EDITION OF THE NATIONAL FUEL GAS CODE ANSI Z223.1, SECTION "PROCEDURES TO BE FOLLOWED TO PLACE AN APPLIANCE IN OPERATION". REFER ALSO TO THE "USER'S INFORMATION MANUAL" SUPPLIED WITH THE UNIT FOR ADDITIONAL INFORMATION ON THE GAS FURNACE.

GAS SUPPLY AND MANIFOLD CHECK

Gas supply pressure and manifold pressure with the burners operating must be as specified on the rating plate.

GAS INLET PRESSURE CHECK

Gas inlet pressure must be checked and adjusted in accordance to the type of fuel being consumed.

WITH POWER AND GAS OFF:

1. Connect a manometer to the inlet pressure tap of the gas valve.

Inlet gas pressure can also be measured by removing the cap from the dripleg and installing a predrilled cap with a hose fitting.

WITH POWER AND GAS ON:

2. Put unit into heating cycle and turn on all other gas consuming appliances.

INLET GAS PRESSURE	
NATURAL	Min. 5.0" W.C., Max. 10.0" W.C.
PROPANE	Min. 11.0" W.C., Max. 13.0" W.C.

NOTE: INLET GAS PRESSURE MUST BE WITHIN LIMITS SHOWN ABOVE.

If operating pressures differ from above, make necessary pressure regulator adjustments, check piping size, etc., and/or consult with local utility.

MANIFOLD PRESSURE CHECK AND ADJUSTMENT

The gas valve has a pressure tap to facilitate measurement of the manifold pressure. The manifold pressure must be measured with the burners operating.

1. With disconnect switch open, remove field connected thermostat wire from terminal R, W1 and W2 on TB1. Place jumper wire between R, W1 and W2 to engage high stage heat.
2. See Figure in gas input check section for gas valve adjustment.

To adjust the pressure regulator, remove the adjustment screw cover on the gas valve. Turn the adjustment screw out (counterclockwise) to decrease pressure, turn in (clockwise) to increase pressure. Only small variations in gas flow should be made by means of the pressure regulator adjustment. Any major changes in flow should be made by changing the size of the burner orifices. The measured input rate to the furnace must not exceed the rating specified on the unit rating plate.

For natural gas, the high stage manifold pressure must be between 3.2 and 3.8 inches water column (3.5 nominal). Low stage manifold pressure must be between 1.7 to 2.3 inches water column (2.0 nominal).

3. To set low fire rate, open disconnect switch and remove jumper from R to W2. To set low fire manifold pressure, repeat steps above. Refer to Figure in gas input check section for location of high and low stage pressure adjustment.

For propane gas, the manifold pressure must be between 9.7 and 10.3 inches water column (10.0 nominal). Low stage manifold must be between 5.7 and 6.3 inches water column (6.0 nominal).

GAS INPUT (NATURAL GAS ONLY) CHECK

It is the responsibility of the contractor to adjust the gas input to the unit.

To measure the gas input use a gas meter and proceed as follows:

1. Turn off gas supply to all other appliances except the unit.
2. With the unit operating, time the smallest dial on the meter for one complete revolution. If this is a 2 cubic foot dial, divide the seconds by 2; if it is a 1 cubic foot dial, use the seconds as is. This gives the seconds per cubic foot of gas being delivered to the unit.
3. $\text{INPUT} = \text{GAS HTG VALUE} \times 3600 / \text{SEC. PER CUBIC FOOT}$

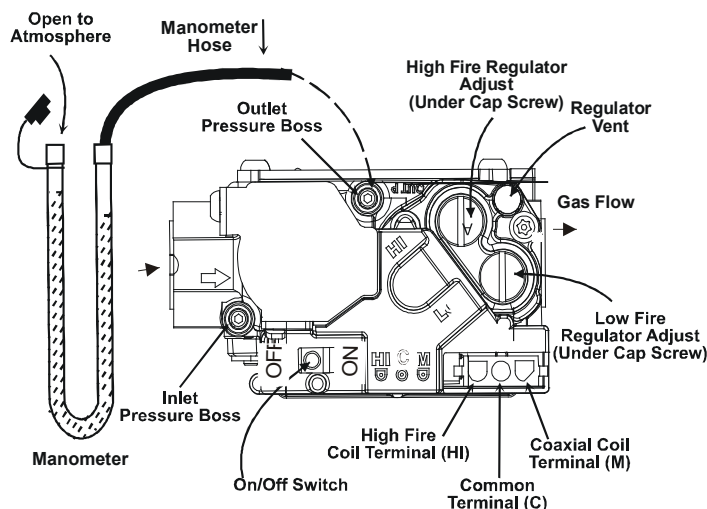
Example: Natural gas with a heating value of 1000 BTU per cubic foot and 34 seconds per cubic foot as determined by Step 2, then:

$$\text{Input} = 1000 \times 3600 / 34 = 106,000 \text{ BTU per Hour.}$$

NOTE: BTU CONTENT OF THE GAS SHOULD BE OBTAINED FROM THE GAS SUPPLIER. THIS MEASURED INPUT MUST NOT BE GREATER THAN SHOWN ON THE UNIT RATING PLATE.

Adjust input rate by varying the adjustment of the gas pressure regulator on the gas valve. All adjustments must be made with furnace operating at high fire and at normal operating temperature. A manometer should be connected to the gas valve to verify pressure is within the specified range (see following figures for manometer connections). Clockwise rotation of the pressure regulator screw increases pressure and gas flow rate. Turn screw counterclockwise to decrease pressure and gas flow rate. After adjustment the furnace temperature rise must be within the range specified on the unit data plate.

NOTE: THERMAL EFFICIENCY OF THE FURNACE IS A PRODUCT EFFICIENCY RATING DETERMINED UNDER CONTINUOUS OPERATING CONDITIONS INDEPENDENT OF ANY INSTALLED SYSTEM.



**WHITE-RODGERS (2-STAGE) GAS CONTROL VALVE
CONNECTED TO MANOMETER PRESSURE ADJUSTMENTS**

To connect manometer to gas valve:

1. Back outlet pressure tap screw (inside inlet pressure boss) out one turn (counterclockwise, not more than one turn).
2. Attach a hose and manometer to the outlet pressure boss of the valve.

To remove manometer from gas valve:

1. Remove manometer hose from outlet pressure boss.
2. Turn outlet pressure tap screw in to seal pressure port (clockwise, 7 in-lb. minimum).
3. Turn on electrical power and gas supply to the system.
4. Turn on system power and energize valve.
5. Using a leak detection solution or soap suds, check for leaks at pressure boss screw. Bubbles forming indicate a leak. **SHUT OFF GAS AND FIX ALL LEAKS IMMEDIATELY.**



CAUTION

TO PREVENT UNRELIABLE OPERATION OR EQUIPMENT DAMAGE, THE GAS MANIFOLD PRESSURE MUST BE AS SPECIFIED ON THE UNIT RATING PLATE. ONLY MINOR ADJUSTMENTS SHOULD BE MADE BY ADJUSTING THE GAS VALVE PRESSURE REGULATOR.

6. Relight all other appliances turned off in step 1 of gas input check. Be sure all pilot burners are operating.

MAIN BURNER FLAME CHECK

Flames should be stable, soft and blue (dust may cause orange tips but they must not be yellow) and extending directly outward from the burner without curling, floating or lifting off.

NOx SCREEN CHECK

Verify that the alignment of the NOx screens is at 6 o'clock. In jurisdictions that do not require low NOx emissions, NOx screens may be removed.

TEMPERATURE RISE CHECK

Check the temperature rise through the unit by placing thermometers in supply and return air registers as close to the unit as possible. Thermometers must not be able to sample temperature directly from the unit heat exchangers, or false readings could be obtained.

1. All registers must be open; all duct dampers must be in their final (fully or partially open) position and the unit operated for 15 minutes before taking readings
2. The temperature rise must be within the range specified on the rating plate.

NOTE: AIR TEMPERATURE RISE IS THE TEMPERATURE DIFFERENCE BETWEEN SUPPLY AND RETURN AIR.

With a properly designed system, the proper amount of temperature rise will normally be obtained when the unit is operated at rated input with the recommended blower speed.

If the correct amount of temperature rise is not obtained, it may be necessary to change the blower speed. A higher

blower speed will lower the temperature rise. A slower blower speed will increase the temperature rise.

NOTE: BLOWER SPEED MUST BE SET TO GIVE THE CORRECT AIR TEMPERATURE RISE THROUGH THE UNIT AS MARKED ON THE RATING PLATE.

NORMAL SEQUENCE OF OPERATION

HEATING

NOTE: ON UNITS WITH DDC CONTROLS OPTION INSTALLED, REFER TO THE DDC CONTROLLER USER MANUAL FOR SEQUENCE OF OPERATION DETAILS.

This unit has one (RS) Manual Reset Limit Control Switch. Check the limit to make sure it has not tripped. The limit may arrive at the job site tripped as a result of shipping shock.

If the venter motor comes on, but the unit does not attempt ignition, check if the ALS (Auxiliary High Limit Control Switch) requires resetting.

1. With electricity and gas turned on, the system switch in the "HEAT" or "AUTO" position and the fan switch in the "AUTO" position, the thermostat will close the circuit between unit terminals R and W (R-W) when the temperature falls below the thermostat setting.
2. D1 on IIC energizes venter motor contactor.
3. Venter motor contactor energizes the venter motor.
4. Operation of the venter motor closes the pressure switch PS located in the burner compartment. Unless excessive temperatures or shipping shock have opened high limit control ALS, power is fed to the integrated ignition control, which then initiates a 15-second pre-purge time delay. During this period, the venter fan will clear the combustion chamber of any residual gas.
5. After the pre-purge period, the ignition control energizes the WI-C gas valve and simultaneously initiates a "three (3)-try" spark ignition sequence.
6. When the burners are ignited, a minimum one (1) micro-amp DC current will flow through the flame between the sensor electrode and the grounded burner.
7. When the controller proves that the flame has been established, it will keep the gas valve energized and discontinue the ignition spark.
8. If the control is unable to ignite the burners after its initial attempt, it will initiate another purge and spark sequence. A third purge and spark sequence will be initiated if the second attempt is unsuccessful. If the third attempt is unsuccessful, the controller will close the gas valve and lock itself out. It may be reset by momentarily interrupting power. This may be accomplished by briefly lowering the room thermostat set-point below room temperature, or by shutting off the main power to the unit.
9. Integrated ignition control will close its normally open contacts after a delay of approximately 30 seconds. This action energizes the blower motor contactor and

starts the supply fan motor. Operation of the supply fan circulates air across the heat exchanger and delivers heated air to the conditioned space.

10. When the space temperature rises, the thermostat will open R-W. Opening R-W will cause the gas valve to close, and the furnace to shut down.
11. The furnace has three high temperature limit controls, which can shut down the burner. They do not shut down the venter motor.

UNIT SHUTDOWN

1. Set the room heating setpoint to lowest setting.
2. Turn off the electrical power supply to the unit.
3. Remove the heat exchanger door on the side of the unit by removing screws.
4. Move the gas control valve switch to the OFF position.
5. Close manual gas shut off valve external to the unit.
6. Replace the heat exchanger door on the unit.
7. If cooling and/or air circulation will be desired, turn ON gas control valve switch and the electrical power.

AUTOMATIC RESET HIGH LIMIT CONTROL (LS)

Located in the burner compartment on the heat exchanger, its sensing element projects through the blower section bulkhead and senses the temperature at the rear of the furnace. It will cycle the furnace off if the temperature exceeds 100°F plus maximum rise.

AUXILIARY HIGH LIMIT CONTROL (ALS)

Located in the blower compartment on the blower housing, it senses air temperature within the blower compartment and protects the filters from excessive temperature. It will shut down the furnace if it senses excessive temperatures.

Elevated temperatures at the control are normally caused by blower failure. The reason for the shut down should be determined and repaired prior to resetting.

MANUAL RESET FLAME ROLLOUT CONTROL (RS)

Located in the burner compartment at the top of the burner assembly, it senses high temperature that could occur if the heat exchanger tubes were plugged and the flame was rolling out instead of entering the tubes. It has a manual push-button reset that cannot be actuated until the limit control has cooled.

The reason for elevated temperatures at the control should be determined and repaired prior to resetting this manual reset control.



WARNING

TO AVOID PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO FIRE OR EXPLOSION, A QUALIFIED SERVICER MUST INVESTIGATE THE REASON FOR THE ROLLOUT PROTECTION DEVICE TO OPEN BEFORE MANUALLY RESETTING THE ROLLOUT PROTECTION DEVICE.

CHECKING SUBCOOLING

NOTE: Units with a TXV should be charged to Subcooling only. Make sure the air flow is correct before making any adjustments.

EXAMPLE:

- Liquid Line Pressure = 417 PSI
- Corresponding Temp. = 120°F
- Thermometer on Liquid line = 109°F.

To obtain the amount of subcooling, subtract 109°F from 120°F. The difference is 11° subcooling. See the specification sheet or technical information manual for the design subcooling range for your unit.

SUBCOOLING FORMULA = SATURATED LIQUID LINE TEMPERATURE - LIQUID LINE TEMPERATURE

CHECKING SUPERHEAT

EXAMPLE:

- Suction Pressure = 143 PSI
- Corresponding Temp. = 50°F
- Thermometer on Suction Line = 59°F

To obtain the degrees temperature of superheat, subtract 50.0 from 59.0°F. The difference is 9° Superheat. The 9° Superheat would fall in the ± range of allowable superheat.

SUPERHEAT = SUCTION LINE TEMP - SAT. SUCTION TEMP.

SUPERHEAT ADJUSTMENT

NOTE: Superheat adjustments should not be made until indoor ambient conditions have stabilized. This could take up to 24 hours depending on indoor temperature and humidity. Before checking superheat, run the unit in cooling for 15-20 minutes or until refrigerant pressures stabilize. Use the following guidelines and methods to check unit operation and ensure that the refrigerant charge is within limits.

For TXV systems, to adjust superheat, unscrew the cover from the expansion valve, locate the adjustment screw, and turn it clockwise (in) to increase superheat or counterclockwise (out) to decrease superheat. It is recommended to make small adjustments at a time, 1/8-1/4 turn increments. Replace adjustment cap. Wait a minimum of 15 minutes between adjustments to allow time for the TXV and pressures to stabilize.

REFRIGERANT CHARGE CHECK

NOTE: FOR OPTIMAL PERFORMANCE, FOLLOW CHARGING INSTRUCTIONS BELOW.

Units with Fixed Orifice Devices

All package units with fixed orifice devices are charged using the superheat method at the compressor suction line. To increase super heat, remove charge and to decrease

super heat, add charge. After superheat is adjusted, it is recommended to check unit subcooling at the condenser coil liquid line.

Units with Expansion valve (TXV)

Single Stage Cooling Application: Refer to the Design Superheat & Subcooling table

Two-Stage Cooling Application: Run unit on Low Stage cooling and refer to Design Superheat & Subcooling table.

- Purge gauge lines. Connect service gauge manifold to access fittings. Run system at least 10 minutes to allow pressure to stabilize.
- Temporarily install thermometer on liquid (small) line near liquid line access fitting with adequate contact and insulate for best possible reading.
- Check subcooling and superheat. System should have a subcooling and superheat within the range listed on the Design Superheat and Subcooling table.

- If subcooling and superheat are low, adjust TXV superheat, then check subcooling.

NOTE: To adjust superheat, turn the valve stem clockwise to increase and counterclockwise to decrease. If an under charge is suspected, recover the charge, re-evacuate the system and recharge per data plate. No adjustments should be made if suspecting a charge issue.

- If subcooling is low and superheat is high, add charge to raise subcooling then check superheat.
- If subcooling and superheat are high, adjust TXV valve superheat, then check subcooling.
- If subcooling is high and superheat is low, adjust TXV valve superheat and remove charge to lower the subcooling.

NOTE: Do NOT adjust the charge based on suction pressure unless there is a gross undercharge. If an under charge is suspected recover the charge, re-evacuate the system and recharge per data plate. No adjustments should be made if suspecting a charge issue.

- Disconnect manifold set, installation is complete.

Design Superheat & Subcooling					
Model	Superheat (°F)	Subcooling (°F)	Expansion Device	Cooling Stage	Outdoor Ambient (°F)
DRG036	14 - 16	11 - 13	TXV	Low	82
DRG048	12 - 14	9 - 11	TXV	Low	82
DRG060	11 - 13	11 - 13	TXV	Low	82
DRG072	15 - 17	9 - 11	TXV	Low	82

START-UP PROCEDURE AND CHECKLIST

Begin with power turned off at all disconnects.

- Turn thermostat system switch to "Cool," and fan switch to "Auto" and turn temperature setting as high as it will go. On units with DDC controls installed, use Test/Balance Menu to force the unit to OFF MODE.
- Inspect all registers and set them to the normal open position.

3. Turn on the electrical supply at the disconnect.
4. Turn the fan switch to the "ON" position. The blower should operate after a 7 second delay. On units with DDC controls installed, use Test/Balance Menu to force the unit to OFF MODE. This test bypasses internal delays.
5. Turn the fan switch to "Auto" position. The blower should stop after a 60 second delay. On units with DDC controls installed, use Test/Balance Menu to force the unit to OFF MODE. This test bypasses internal delays.
6. Slowly lower the cooling temperature until the unit starts. The compressor, blower and fan should now be operating. Allow the unit to run 10 minutes, make sure cool air is being supplied by the unit. On units with DDC controls installed, use Test/Balance Menu to force the unit to Low Cool Mode or High Cool Mode. This test bypasses internal delays.
7. Turn the temperature setting to the highest position, stopping the unit. The indoor blower will continue to run for 60 seconds. On units with DDC controls installed, use Test/Balance Menu to force the unit to VENT MODE. This test bypasses internal delays.
8. Turn the thermostat system switch to "OFF" and disconnect all power when servicing the unit. On units with DDC controls installed, use Test/Balance Menu to disable FORCE MODE operation and allow the unit to return to normal operation.

REFRIGERATION SEQUENCE CHECK

1. 24VAC control voltage is provided by the control transformer to terminal XS. The control voltage is passed through any installed safety shutdown devices such as the smoke detector before providing 24VAC to terminals ES and R.
2. To simulate a mechanical call for cooling lower the room cooling setpoint to a value below the current room temperature. The cooling is energized when the room temperature is above the setpoint for cooling.
3. **UNIT WITH ECONOMIZER OPTION:** The compressor circuit is interlocked through the economizer module. If the outdoor air enthalpy (temperature and humidity) is not suitable for cooling, the economizer will permit the compressor to be energized.
4. The blower motor is operated to provide cool supply air to the space.
5. Compressor contactor closes its contacts to provide power to the compressor motor. In addition, the condenser fan motor is energized through the compressor contactor.



WARNING

BURN HAZARD!
DO NOT TOUCH! DISCHARGE LINE MAY BE HOT!

6. Check that the compressor is operating correctly. The scroll compressors in these units **MUST** operate in the proper rotation. To ensure the compressor

is operating in the correct direction, check the compressor discharge line pressure or temperature after the compressor is started.

The discharge pressure and discharge line temperature should increase. If this does not occur and the compressor is producing an exceptional amount of noise, perform the following checks.

- If the compressor is operating backward, disconnect the unit power supply and lock it in the "OFF" position. Switch two leads of the power supply at the unit Single Point Power Block. Reconnect power and check for compressor and condenser fan motor operation.
7. With all safety devices closed, the system will continue cooling operation until the room temperature is satisfied. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. This test bypasses internal delays.
 8. Increasing the room cooling setpoint to a value above the current room temperature will simulate a satisfied thermostat. The compressor and the supply fan will cycle off. On units with DDC controls installed, use Test/Balance Menu to force the unit to Vent Mode. Use Test/Balance Menu to disable Force Mode operation and allow the unit to return to normal operation.
 9. After a time delay of approximately 3 minutes, the compressor control circuits will be ready to respond to a subsequent call for cooling.

REFRIGERATION PERFORMANCE CHECK

Check that compressor RLA corresponds to values shown in Appendix B. RLA draw can be much lower than values listed at low load conditions and low ambient condensing temperatures. Values in Appendix B can slightly exceed at high load conditions and high ambient condensing temperatures.

FINAL SYSTEM CHECKS

1. Check to see if all supply and return air grilles are adjusted and the air distribution system is balanced for the best compromise between heating and cooling.
2. Check for air leaks in the ductwork. See Sections on Air Flow Adjustments.
3. Make sure the unit is free of "rattles", and the tubing in the unit is free from excessive vibration. Also make sure tubes or lines are not rubbing against each other or sheet metal surfaces or edges. If so, correct the trouble.
4. Set the thermostat at the appropriate setting for cooling and heating or automatic changeover for normal use.
5. Be sure the Owner is instructed on the unit operation, filter, servicing, correct thermostat operation, etc.

MAINTENANCE



WARNING

ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD
FAILURE TO FOLLOW SAFETY WARNINGS EXACTLY COULD RESULT IN DANGEROUS OPERATION, SERIOUS INJURY, DEATH OR PROPERTY DAMAGE.

IMPROPER SERVICING COULD RESULT IN DANGEROUS OPERATION, SERIOUS INJURY, DEATH OR PROPERTY DAMAGE.

- **BEFORE SERVICING, DISCONNECT ALL ELECTRICAL POWER TO FURNACE.**
- **WHEN SERVICING CONTROLS, LABEL ALL WIRES PRIOR TO DISCONNECTING. RECONNECT WIRES CORRECTLY.**
- **VERIFY PROPER OPERATION AFTER SERVICING.**



WARNING

HIGH VOLTAGE!

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

TO PREVENT PERSONAL INJURY OR DEATH DUE TO IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE, REFER TO THIS MANUAL. FOR ADDITIONAL ASSISTANCE OR INFORMATION, CONSULT A QUALIFIED INSTALLER, SERVICER AGENCY OR THE GAS SUPPLIER.



CAUTION

SHEET METAL PARTS, SCREWS, CLIPS AND SIMILAR ITEMS INHERENTLY HAVE SHARP EDGES, AND IT IS NECESSARY THAT THE INSTALLER AND SERVICE PERSONNEL EXERCISE CAUTION.

Preventive maintenance is the best way to avoid unnecessary expense and inconvenience. Have this system inspected at regular intervals by qualified service personnel, at least twice a year. Routine maintenance should cover the following items:

1. Tighten all set screws, and wire connections.
2. Clean evaporator and condenser coils mechanically or with cold water, if necessary. Usually any fouling is only matted on the entering air face of the coil and can be removed by brushing.
3. Replace filters as needed (see below).
4. Check for blockage of condensate drain.

5. Check power and control voltages.
6. Check running amperage.
7. Check operating temperatures and pressures.
8. Check and adjust temperature and pressure controls.
9. Check and adjust damper linkages.
10. Check operation of all safety controls.
11. Examine gas furnaces (see below and the User's Information Manual).
12. Check condenser fans and tighten set screws.

FILTERS



CAUTION

TO PREVENT PROPERTY DAMAGE DUE TO FIRE AND LOSS OF EQUIPMENT EFFICIENCY OR EQUIPMENT DAMAGE DUE TO DUST AND LINT BUILD UP ON INTERNAL PARTS, NEVER OPERATE UNIT WITHOUT AN AIR FILTER INSTALLED IN THE RETURN AIR SYSTEM.

Every application may require a different frequency of replacement of dirty filters. Filters must be replaced at least every three (3) months during operating seasons.

Dirty filters are the most common cause of inadequate heating or cooling performance. Filter inspection should be made at least every two months; more often if necessary because of local conditions and usage.

Dirty throwaway filters should be discarded and replaced with a new, clean filter.

Disposable return air filters are supplied with this unit. See the unit Specification Sheet or Technical Manual for the correct size and part number. To remove the filters, remove the filter access panel on return side of the unit.

CABINET FINISH MAINTENANCE

Use a fine grade automotive wax on the cabinet finish to maintain the finish's original high luster. This is especially important in installations with extended periods of direct sunlight.

CLEAN OUTSIDE COIL (QUALIFIED SERVICER ONLY)

The coil with the outside air flowing over it should be inspected annually and cleaned as frequently as necessary to keep the finned areas free of lint, hair and debris.

CONDENSER AND INDUCED DRAFT MOTORS

Bearings on the condenser fan motors and the combustion fan motor are permanently lubricated. No additional oiling is required.

FLAME SENSOR (QUALIFIED SERVICER ONLY)

A drop in the flame current can be caused by a nearly invisible coating on the flame sensor. This coating, created by the fuel or combustion air supply, can be removed by carefully cleaning the flame sensor with steel wool.

NOTE: AFTER CLEANING, THE MICROAMP SIGNAL SHOULD BE STABLE AND IN THE RANGE OF 4 - 6 MICROAMPS DC.

FLUE PASSAGES (QUALIFIED SERVICER ONLY)

At the start of each heating season, inspect and, if necessary, clean the unit flue passage.

LUBRICATION

The fan shaft bearings, the supply fan motors, the condenser fan motors and compressors are permanently lubricated.

INSPECTION & CLEANING

All flue product carrying areas of the furnace, its vent system, and main burners should be examined by a qualified service agency, and cleaned if necessary, before the start of each heating season. This examination is necessary for continued safe operation. Particular attention should be given to deterioration from corrosion or other sources. This examination is accomplished in the following manner.

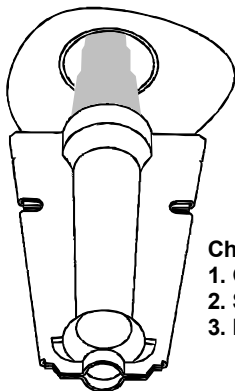
1. Disconnect power to the unit and remove furnace section access panel.
2. Remove burner assembly:
 - a. Disconnect the wires from the gas valve after noting which wires are connected to each terminal.
 - b. Disconnect wires from the flame rod and ignition electrode.
 - c. Disconnect the gas piping at the union.
 - d. The entire burner assembly can now be removed from the unit.

NOTE: USE ALL SCREWS THAT WERE REMOVED; THEY ARE NECESSARY FOR SAFE AND PROPER OPERATION OF THE UNIT.

3. Inspect and periodically clean the vent outlet (bird screen) on the access panel.

NOTE: PERIODIC OBSERVATION OF THE FLAME AND A LOG OF CO₂ MEASUREMENTS ARE RECOMMENDED. THIS WILL AID IN DETERMINING WHETHER THE FURNACE IS OPERATING EFFICIENTLY OR IF THE FURNACE REQUIRES CLEANING.

Flames should be stable, soft and blue (dust may cause orange tips but must not be yellow). The flames must extend directly outward from the burner without curling, floating or lifting off.



Check the burner flames for:
1. Good adjustment
2. Stable, soft and blue
3. Not curling, floating, or lifting off.

BURNER FLAME



WARNING

TO AVOID PERSONAL INJURY OR DEATH DUE TO ELECTRIC SHOCK, DO NOT REMOVE ANY INTERNAL COMPARTMENT COVERS OR ATTEMPT ANY ADJUSTMENT. CONTACT A QUALIFIED SERVICER AT ONCE IF AN ABNORMAL FLAME SHOULD DEVELOP.

At least once a year, prior to or during the heating season, make a visual check of the burner flames.

NOTE: THIS WILL INVOLVE REMOVING AND REINSTALLING THE HEAT EXCHANGER DOOR ON THE UNIT, WHICH IS HELD BY TWO SCREWS. IF YOU ARE UNCERTAIN ABOUT YOUR ABILITY TO DO THIS, CONTACT A QUALIFIED SERVICER.

If a strong wind is blowing, it may alter the airflow pattern within the unit enough that an inspection of the burner flames is not possible.

FUNCTIONAL PARTS

Refer to the unit Parts Catalog for a list of functional parts. Parts are available from your distributor.

TROUBLESHOOTING

IGNITION CONTROL ERROR CODES

The following presents probable causes of questionable unit operation. Refer to *Diagnostic Indicator Chart* for an interpretation of the signal and to this section for an explanation.

Remove the control box access panel and note the number of diagnostic LED flashes.

INTERNAL CONTROL FAILURE

If the integrated ignition control in this unit encounters an internal fault, it will go into a "hard" lockout and turn off the diagnostic LED. If diagnostic LED indicates an internal fault, check power supply to unit for proper voltage, check all fuses, circuit breakers and wiring. Disconnect electric power for five seconds. If LED remains off after restoring power, replace control.

ABNORMAL OPERATION - HEATING CODES

EXTERNAL LOCKOUT (1 FLASH CODE)

An external lockout occurs if the integrated ignition control determines that a measurable combustion cannot be established within three (3) consecutive ignition attempts. If flame is not established within the seven (7) second trial for ignition, the gas valve is deenergized, 15 second inter-purge cycle is completed, and ignition is reattempted. The control will repeat this routine three times if a measurable combustion is not established. The control will then shut off the induced draft blower and go into a lockout state.

If flame is established but lost, the control will energize the circulator blower at the heat speed and then begin a new ignition sequence. If flame is established then lost on

subsequent attempts, the control will recycle for four (4) consecutive ignition attempts (five attempts total) before locking out.

The diagnostic fault code is 1 flash for a lockout due to failed ignition attempts or flame dropouts. The integrated control will automatically reset after one hour, or it can be reset by removing the thermostat signal or disconnecting the electrical power supply for over five seconds. If the diagnostic LED indicates an external lockout, perform the following checks:

- *Check the supply and manifold gas pressures*
- *Check the gas orifices for debris*
- *Check gas valve for proper operation*
- *Check secondary limit*

A dirty filter, excessive duct static, insufficient air flow, a faulty limit, or a failed circulator blower can cause this limit to open. Check filters, total external duct static, circulator blower motor, blower motor speed tap (see wiring diagram) and limit. An interruption in electrical power during a heating cycle may also cause the auxiliary limit to open. The automatic reset secondary limit is located on top of the circulator blower assembly.

- *Check rollout limit*

If the burner flames are not properly drawn into the heat exchanger, the flame rollout protection device will open. Possible causes are restricted or blocked flue passages, blocked or cracked heat exchanger, a failed induced draft blower, or insufficient combustion air. The rollout protection device is a manual reset limit located on the burner bracket. The cause of the flame rollout must be determined and corrected before resetting the limit.

- *Check flame sensor*

A drop in flame signal can be caused by nearly invisible coating on the sensor. Remove the sensor and carefully clean with steel wool.

- *Check wiring*

Check wiring for opens/shorts and miswiring.

IMPORTANT: IF YOU HAVE TO FREQUENTLY RESET YOUR GAS/ELECTRIC PACKAGE UNIT, IT MEANS THAT A PROBLEM EXISTS THAT SHOULD BE CORRECTED. CONTACT A QUALIFIED SERVICER FOR FURTHER INFORMATION.

PRESSURE SWITCH STUCK OPEN (2 FLASH CODE)

IA pressure switch stuck open can be caused by a faulty pressure switch, faulty wiring, a disconnected or damaged hose, a blocked or restricted flue, or a faulty induced draft blower. If the control senses an open pressure switch during the pre-purge cycle, the induced draft blower only will be energized.

If the pressure switch opens after ignition has begun the gas valve is deenergized, the circulator blower heat off cycle begins, and the induced draft blower remains on. The diagnostic fault code is two flashes.

PRESSURE SWITCH STUCK CLOSED (3 FLASH CODE)

A stuck closed pressure switch can be caused by a faulty pressure switch or faulty wiring. If the control encounters a pressure switch stuck closed, the induced draft blower remains off. The diagnostic LED code for this fault is three (3) flashes.

OPEN THERMAL PROTECTION DEVICE (4 FLASH CODE)

If the primary limit switch opens, the gas valve is immediately deenergized, the induced draft and air circulating blowers are energized. The induced draft and air circulator blowers remain energized until the limit switch recloses. The diagnostic fault code for an open limit is four (4) flashes.

A primary limit will open due to excessive supply air temperatures. This can be caused by a dirty filter, excessive duct static, insufficient air flow, or a faulty limit. Check filters, total external duct static, blower motor, blower motor speed tap (see wiring diagram), and limit. This limit will automatically reset once the temperature falls below a preset level.

FLAME DETECTED WITH GAS VALVE CLOSED (5 FLASH CODE)

If flame is detected with the gas valve deenergized, the combustion and air circulator blowers are energized. The diagnostic fault code is five (5) flashes for this condition. The control can be reset by removing the power supply to the unit or it will automatically reset after one hour. Miswiring is the probable cause for this fault.

ABNORMAL OPERATION - COOLING CODES

SHORT CYCLE COMPRESSOR DELAY (6 FLASH CODE)

The automatic ignition control has a built-in feature that prevents damage to the compressor in short cycling situations. In the event of intermittent power losses or intermittent thermostat operation, the ignition control will delay output to the compressor contactor for three minutes from the time power is restored. (Compressor is off a total of three minutes). The diagnostic LED will flash six (6) times to indicate the compressor contactor output is being delayed.

NOTE: SOME ELECTRONIC THERMOSTATS ALSO HAVE A BUILT-IN COMPRESSOR SHORT CYCLE TIMER THAT MAY BE LONGER THAN THE THREE MINUTE DELAY GIVEN ABOVE. IF YOU ARE USING AN ELECTRONIC THERMOSTAT AND THE COMPRESSOR HAS NOT STARTED AFTER THREE MINUTES, WAIT AN ADDITIONAL FIVE MINUTES TO ALLOW THE THERMOSTAT TO COMPLETE ITS SHORT CYCLE DELAY TIME.

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

MODELS: DRG0361D AND DRG0363D

STANDARD STATIC DRIVE

Burners High Fire Input: 45,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1000	600	0.15	T1	0.2	1050	580	0.15
	0.4	865	685	0.18		0.4	910	665	0.17
	0.6	730	750	0.19		0.6	765	730	0.19
	0.8	600	810	0.21		0.8	630	785	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	895	570	0.12	T2	0.2	940	555	0.12
	0.4	755	655	0.14		0.4	795	635	0.14
	0.6	610	725	0.16		0.6	640	705	0.15
	0.8	470	780	0.17		0.8	495	755	0.16
	1.0	-	-	-		1.0	-	-	-
T3	0.2	895	570	0.12	T3	0.2	940	555	0.12
	0.4	755	655	0.14		0.4	795	635	0.14
	0.6	610	725	0.16		0.6	640	705	0.15
	0.8	470	780	0.17		0.8	495	755	0.16
	1.0	-	-	-		1.0	-	-	-
T4	0.2	1225	670	0.24	T4	0.2	1285	650	0.23
	0.4	1110	745	0.27		0.4	1165	725	0.26
	0.6	985	815	0.29		0.6	1035	790	0.28
	0.8	880	870	0.31		0.8	925	845	0.30
	1.0	780	915	0.33		1.0	820	890	0.32
T5	0.2	1425	730	0.33	T5	0.2	1495	710	0.32
	0.4	1325	795	0.36		0.4	1390	770	0.35
	0.6	1210	865	0.39		0.6	1270	840	0.38
	0.8	1115	920	0.42		0.8	1170	890	0.40
	1.0	1015	960	0.43		1.0	1065	930	0.42

3 Ton

MODELS: DRG0361D AND DRG0363D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1000	600	0.15	T1	0.2	1050	580	0.15
	0.4	865	685	0.18		0.4	910	665	0.17
	0.6	730	750	0.19		0.6	765	730	0.19
	0.8	600	810	0.21		0.8	630	785	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1270	685	0.26	T2	0.2	1335	665	0.25
	0.4	1160	755	0.29		0.4	1220	730	0.28
	0.6	1040	825	0.31		0.6	1090	800	0.30
	0.8	935	880	0.33		0.8	980	855	0.32
	1.0	835	925	0.35		1.0	875	895	0.34
T3	0.2	1270	685	0.26	T3	0.2	1335	665	0.25
	0.4	1160	755	0.29		0.4	1220	730	0.28
	0.6	1040	825	0.31		0.6	1090	800	0.30
	0.8	935	880	0.33		0.8	980	855	0.32
	1.0	835	925	0.35		1.0	875	895	0.34
T4	0.2	1225	670	0.24	T4	0.2	1285	650	0.23
	0.4	1110	745	0.27		0.4	1165	725	0.26
	0.6	985	815	0.29		0.6	1035	790	0.28
	0.8	880	870	0.31		0.8	925	845	0.30
	1.0	780	915	0.33		1.0	820	890	0.32
T5	0.2	1900	850	0.61	T5	0.2	1995	825	0.59
	0.4	1800	910	0.65		0.4	1890	885	0.63
	0.6	1695	970	0.69		0.6	1780	940	0.67
	0.8	1595	1035	0.74		0.8	1675	1005	0.72
	1.0	1495	1090	0.78		1.0	1570	1055	0.75

APPENDIX A BLOWER PERFORMANCE DATA

3 TON

MODELS: DRG0361D AND DRG0363D

STANDARD STATIC DRIVE

Burners High Fire Input: 115,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1000	600	0.15	T1	0.2	1050	580	0.15
	0.4	865	685	0.18		0.4	910	665	0.17
	0.6	730	750	0.19		0.6	765	730	0.19
	0.8	600	810	0.21		0.8	630	785	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1090	630	0.19	T2	0.2	1145	610	0.18
	0.4	970	710	0.21		0.4	1020	690	0.21
	0.6	835	775	0.23		0.6	875	750	0.22
	0.8	715	835	0.25		0.8	750	810	0.24
	1.0	615	885	0.26		1.0	645	860	0.26
T3	0.2	1300	695	0.27	T3	0.2	1365	675	0.27
	0.4	1195	765	0.30		0.4	1255	740	0.29
	0.6	1075	835	0.33		0.6	1130	810	0.32
	0.8	970	890	0.35		0.8	1020	865	0.34
	1.0	870	930	0.37		1.0	915	900	0.35
T4	0.2	1225	670	0.24	T4	0.2	1285	650	0.23
	0.4	1110	745	0.27		0.4	1165	725	0.26
	0.6	985	815	0.29		0.6	1035	790	0.28
	0.8	880	870	0.31		0.8	925	845	0.30
	1.0	780	915	0.33		1.0	820	890	0.32
T5	0.2	1900	850	0.61	T5	0.2	1995	825	0.59
	0.4	1800	910	0.65		0.4	1890	885	0.63
	0.6	1695	970	0.69		0.6	1780	940	0.67
	0.8	1595	1035	0.74		0.8	1675	1005	0.72
	1.0	1495	1090	0.78		1.0	1570	1055	0.75

4 TON

MODELS: DRG0481D AND DRG0483D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1040	595	0.15	T1	0.2	1090	575	0.15
	0.4	895	680	0.17		0.4	940	660	0.17
	0.6	755	750	0.19		0.6	795	730	0.19
	0.8	630	820	0.21		0.8	660	795	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1060	600	0.16	T2	0.2	1115	580	0.15
	0.4	920	685	0.18		0.4	965	665	0.18
	0.6	780	755	0.20		0.6	820	730	0.19
	0.8	655	825	0.22		0.8	690	800	0.21
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1165	635	0.20	T3	0.2	1225	615	0.19
	0.4	1040	710	0.22		0.4	1090	690	0.22
	0.6	905	785	0.25		0.6	950	760	0.24
	0.8	785	850	0.27		0.8	825	825	0.26
	1.0	665	905	0.28		1.0	700	880	0.28
T4	0.2	1510	740	0.36	T4	0.2	1585	720	0.35
	0.4	1410	800	0.39		0.4	1480	775	0.38
	0.6	1305	870	0.42		0.6	1370	845	0.41
	0.8	1195	925	0.45		0.8	1255	895	0.43
	1.0	1095	980	0.47		1.0	1150	950	0.46
T5	0.2	1805	840	0.56	T5	0.2	1895	815	0.54
	0.4	1715	890	0.59		0.4	1800	865	0.58
	0.6	1630	940	0.63		0.6	1710	910	0.61
	0.8	1550	990	0.66		0.8	1630	960	0.64
	1.0	1455	1045	0.70		1.0	1530	1015	0.68

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

MODELS: DRG0481D AND DRG0483D

STANDARD STATIC DRIVE

Burners High Fire Input: 115,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1015	595	0.15	T1	0.2	1075	560	0.14
	0.4	870	680	0.17		0.4	920	640	0.16
	0.6	735	750	0.19		0.6	780	705	0.18
	0.8	600	815	0.21		0.8	635	765	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1405	715	0.31	T2	0.2	1490	670	0.29
	0.4	1305	775	0.33		0.4	1385	730	0.31
	0.6	1190	840	0.36		0.6	1260	790	0.34
	0.8	1075	905	0.39		0.8	1140	850	0.36
	1.0	970	960	0.41		1.0	1030	900	0.39
T3	0.2	1785	845	0.55	T3	0.2	1890	795	0.52
	0.4	1700	890	0.58		0.4	1800	835	0.55
	0.6	1620	945	0.62		0.6	1715	890	0.58
	0.8	1525	995	0.65		0.8	1615	935	0.61
	1.0	1425	1050	0.69		1.0	1510	985	0.64
T4	0.2	1515	750	0.36	T4	0.2	1605	705	0.34
	0.4	1420	805	0.39		0.4	1505	755	0.37
	0.6	1315	870	0.42		0.6	1395	820	0.40
	0.8	1205	930	0.45		0.8	1275	875	0.42
	1.0	1105	985	0.48		1.0	1170	925	0.45
T5	0.2	1820	855	0.58	T5	0.2	1930	805	0.55
	0.4	1730	900	0.61		0.4	1835	845	0.57
	0.6	1655	955	0.65		0.6	1755	900	0.61
	0.8	1560	1005	0.68		0.8	1655	945	0.64
	1.0	1460	1055	0.72		1.0	1550	990	0.67

4 Ton

MODELS: DRG0481D AND DRG0483D

STANDARD STATIC DRIVE

Burners High Fire Input: 140,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1015	595	0.15	T1	0.2	1075	560	0.14
	0.4	870	680	0.17		0.4	920	640	0.16
	0.6	735	750	0.19		0.6	780	705	0.18
	0.8	600	815	0.21		0.8	635	765	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1145	630	0.19	T2	0.2	1215	590	0.18
	0.4	1015	710	0.22		0.4	1075	665	0.21
	0.6	885	780	0.24		0.6	940	735	0.23
	0.8	755	845	0.26		0.8	800	795	0.25
	1.0	640	900	0.28		1.0	680	845	0.26
T3	0.2	1930	900	0.70	T3	0.2	2045	845	0.65
	0.4	1830	940	0.73		0.4	1940	885	0.68
	0.6	1770	990	0.77		0.6	1875	930	0.72
	0.8	1680	1030	0.80		0.8	1780	970	0.75
	1.0	1570	1080	0.84		1.0	1665	1015	0.79
T4	0.2	1515	750	0.36	T4	0.2	1605	705	0.34
	0.4	1420	805	0.39		0.4	1505	755	0.37
	0.6	1315	870	0.42		0.6	1395	820	0.40
	0.8	1205	930	0.45		0.8	1275	875	0.42
	1.0	1105	985	0.48		1.0	1170	925	0.45
T5	0.2	1820	855	0.58	T5	0.2	1930	805	0.55
	0.4	1730	900	0.61		0.4	1835	845	0.57
	0.6	1655	955	0.65		0.6	1755	900	0.61
	0.8	1560	1005	0.68		0.8	1655	945	0.64
	1.0	1460	1055	0.72		1.0	1550	990	0.67

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

MODELS: DRG0601D AND DRG0603D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1220	650	0.21	T1	0.2	1280	630	0.21
	0.4	1095	730	0.24		0.4	1150	710	0.23
	0.6	965	800	0.26		0.6	1015	775	0.26
	0.8	850	865	0.29		0.8	895	840	0.28
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1200	645	0.21	T2	0.2	1260	625	0.20
	0.4	1075	725	0.23		0.4	1130	705	0.23
	0.6	945	795	0.26		0.6	990	770	0.25
	0.8	830	865	0.28		0.8	870	840	0.27
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1200	645	0.21	T3	0.2	1260	625	0.20
	0.4	1075	725	0.23		0.4	1130	705	0.23
	0.6	945	795	0.26		0.6	990	770	0.25
	0.8	830	865	0.28		0.8	870	840	0.27
	1.0	-	-	-		1.0	-	-	-
T4	0.2	1895	865	0.62	T4	0.2	1990	840	0.60
	0.4	1810	920	0.66		0.4	1900	890	0.64
	0.6	1720	965	0.69		0.6	1805	935	0.67
	0.8	1640	1020	0.73		0.8	1720	990	0.71
	1.0	1515	1060	0.76		1.0	1590	1030	0.74
T5	0.2	2145	955	0.91	T5	0.2	2250	925	0.88
	0.4	2065	990	0.94		0.4	2170	960	0.91
	0.6	1980	1035	0.99		0.6	2080	1005	0.96
	0.8	1900	1075	1.02		0.8	1995	1045	0.99
	1.0	1820	1120	1.07		1.0	1910	1085	1.03

5 Ton

MODELS: DRG0601D AND DRG0603D

STANDARD STATIC DRIVE

Burners High Fire Input: 115,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1220	650	0.21	T1	0.2	1280	630	0.21
	0.4	1095	730	0.24		0.4	1150	710	0.23
	0.6	965	800	0.26		0.6	1015	775	0.26
	0.8	850	865	0.29		0.8	895	840	0.28
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1185	640	0.20	T2	0.2	1245	620	0.19
	0.4	1060	720	0.23		0.4	1115	700	0.22
	0.6	925	795	0.25		0.6	970	770	0.24
	0.8	810	860	0.27		0.8	850	835	0.26
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1665	790	0.44	T3	0.2	1750	765	0.43
	0.4	1565	850	0.48		0.4	1645	825	0.46
	0.6	1465	910	0.51		0.6	1540	885	0.49
	0.8	1375	965	0.54		0.8	1445	935	0.52
	1.0	1240	1005	0.56		1.0	1300	975	0.55
T4	0.2	1895	865	0.62	T4	0.2	1990	840	0.60
	0.4	1810	920	0.66		0.4	1900	890	0.64
	0.6	1720	965	0.69		0.6	1805	935	0.67
	0.8	1640	1020	0.73		0.8	1720	990	0.71
	1.0	1515	1060	0.76		1.0	1590	1030	0.74
T5	0.2	2145	955	0.91	T5	0.2	2250	925	0.88
	0.4	2065	990	0.94		0.4	2170	960	0.91
	0.6	1980	1035	0.99		0.6	2080	1005	0.96
	0.8	1900	1075	1.02		0.8	1995	1045	0.99
	1.0	1820	1120	1.07		1.0	1910	1085	1.03

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

MODELS: DRG0601D AND DRG0603D

STANDARD STATIC DRIVE

Burners High Fire Input: 140,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1220	650	0.21	T1	0.2	1280	630	0.21
	0.4	1095	730	0.24		0.4	1150	710	0.23
	0.6	965	800	0.26		0.6	1015	775	0.26
	0.8	850	865	0.29		0.8	895	840	0.28
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1910	870	0.63	T2	0.2	2005	845	0.61
	0.4	1825	925	0.67		0.4	1915	895	0.65
	0.6	1735	970	0.70		0.6	1820	940	0.68
	0.8	1655	1020	0.74		0.8	1740	990	0.72
	1.0	1530	1060	0.77		1.0	1605	1030	0.75
T3	0.2	1910	870	0.63	T3	0.2	2005	845	0.61
	0.4	1825	925	0.67		0.4	1915	895	0.65
	0.6	1735	970	0.70		0.6	1820	940	0.68
	0.8	1655	1020	0.74		0.8	1740	990	0.72
	1.0	1530	1060	0.77		1.0	1605	1030	0.75
T4	0.2	1895	865	0.62	T4	0.2	1990	840	0.60
	0.4	1810	920	0.66		0.4	1900	890	0.64
	0.6	1720	965	0.69		0.6	1805	935	0.67
	0.8	1640	1020	0.73		0.8	1720	990	0.71
	1.0	1515	1060	0.76		1.0	1590	1030	0.74
T5	0.2	2145	955	0.91	T5	0.2	2250	925	0.88
	0.4	2065	990	0.94		0.4	2170	960	0.91
	0.6	1980	1035	0.99		0.6	2080	1005	0.96
	0.8	1900	1075	1.02		0.8	1995	1045	0.99
	1.0	1820	1120	1.07		1.0	1910	1085	1.03

3 Ton

MODELS: DRG0364D AND DRG0367D

STANDARD STATIC DRIVE

Burners High Fire Input: 45,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	955	575	0.15	T1	0.2	1010	540	0.14
	0.4	825	660	0.17		0.4	875	620	0.16
	0.6	685	740	0.19		0.6	725	695	0.18
	0.8	555	805	0.21		0.8	590	755	0.19
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1130	630	0.22	T2	0.2	1200	590	0.20
	0.4	1025	710	0.25		0.4	1085	665	0.23
	0.6	900	785	0.27		0.6	955	740	0.26
	0.8	780	850	0.29		0.8	825	800	0.28
	1.0	670	905	0.31		1.0	710	850	0.29
T3	0.2	1130	630	0.22	T3	0.2	1200	590	0.20
	0.4	1025	710	0.25		0.4	1085	665	0.23
	0.6	900	785	0.27		0.6	955	740	0.26
	0.8	780	850	0.29		0.8	825	800	0.28
	1.0	670	905	0.31		1.0	710	850	0.29
T4	0.2	1155	640	0.23	T4	0.2	1225	600	0.21
	0.4	1050	715	0.26		0.4	1115	670	0.24
	0.6	925	790	0.28		0.6	980	745	0.27
	0.8	805	855	0.31		0.8	855	805	0.29
	1.0	695	910	0.32		1.0	735	855	0.31
T5	0.2	1525	765	0.55	T5	0.2	1615	720	0.51
	0.4	1435	820	0.59		0.4	1520	770	0.55
	0.6	1350	875	0.62		0.6	1430	825	0.59
	0.8	1250	940	0.67		0.8	1325	885	0.63
	1.0	1150	995	0.71		1.0	1220	935	0.67

APPENDIX A BLOWER PERFORMANCE DATA

3 Ton

MODELS: DRG0364D AND DRG0367D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	955	575	0.15	T1	0.2	1010	540	0.14
	0.4	825	660	0.17		0.4	875	620	0.16
	0.6	685	740	0.19		0.6	725	695	0.18
	0.8	555	805	0.21		0.8	590	755	0.19
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1215	660	0.26	T2	0.2	1290	620	0.24
	0.4	1115	730	0.29		0.4	1180	685	0.27
	0.6	1000	805	0.32		0.6	1060	755	0.30
	0.8	885	870	0.34		0.8	940	820	0.32
	1.0	775	925	0.36		1.0	820	870	0.34
T3	0.2	1190	650	0.25	T3	0.2	1260	610	0.23
	0.4	1090	725	0.27		0.4	1155	680	0.26
	0.6	970	800	0.30		0.6	1030	750	0.28
	0.8	855	865	0.33		0.8	905	815	0.31
	1.0	745	915	0.35		1.0	790	860	0.33
T4	0.2	1155	640	0.23	T4	0.2	1225	600	0.21
	0.4	1050	715	0.26		0.4	1115	670	0.24
	0.6	925	790	0.28		0.6	980	745	0.27
	0.8	805	855	0.31		0.8	855	805	0.29
	1.0	695	910	0.32		1.0	735	855	0.31
T5	0.2	1525	765	0.55	T5	0.2	1615	720	0.51
	0.4	1435	820	0.59		0.4	1520	770	0.55
	0.6	1350	875	0.62		0.6	1430	825	0.59
	0.8	1250	940	0.67		0.8	1325	885	0.63
	1.0	1150	995	0.71		1.0	1220	935	0.67

3 Ton

MODELS: DRG0364D AND DRG0367D

STANDARD STATIC DRIVE

Burners High Fire Input: 115,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	955	575	0.15	T1	0.2	1010	540	0.14
	0.4	825	660	0.17		0.4	875	620	0.16
	0.6	685	740	0.19		0.6	725	695	0.18
	0.8	555	805	0.21		0.8	590	755	0.19
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1040	605	0.18	T2	0.2	1100	570	0.17
	0.4	920	685	0.20		0.4	975	645	0.19
	0.6	790	760	0.23		0.6	835	715	0.21
	0.8	665	825	0.25		0.8	705	775	0.23
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1215	660	0.26	T3	0.2	1290	620	0.24
	0.4	1115	730	0.29		0.4	1180	685	0.27
	0.6	1000	805	0.32		0.6	1060	755	0.30
	0.8	885	870	0.34		0.8	940	820	0.32
	1.0	775	925	0.36		1.0	820	870	0.34
T4	0.2	1155	640	0.23	T4	0.2	1225	600	0.21
	0.4	1050	715	0.26		0.4	1115	670	0.24
	0.6	925	790	0.28		0.6	980	745	0.27
	0.8	805	855	0.31		0.8	855	805	0.29
	1.0	695	910	0.32		1.0	735	855	0.31
T5	0.2	1525	765	0.55	T5	0.2	1615	720	0.51
	0.4	1435	820	0.59		0.4	1520	770	0.55
	0.6	1350	875	0.62		0.6	1430	825	0.59
	0.8	1250	940	0.67		0.8	1325	885	0.63
	1.0	1150	995	0.71		1.0	1220	935	0.67

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

MODELS: DRG0484D AND DRG0487D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1015	595	0.15	T1	0.2	1075	560	0.14
	0.4	870	680	0.17		0.4	920	640	0.16
	0.6	735	750	0.19		0.6	780	705	0.18
	0.8	600	815	0.21		0.8	635	765	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1030	595	0.16	T2	0.2	1090	560	0.15
	0.4	885	680	0.18		0.4	940	640	0.17
	0.6	750	750	0.20		0.6	795	705	0.18
	0.8	615	815	0.21		0.8	650	765	0.20
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1155	635	0.20	T3	0.2	1225	595	0.19
	0.4	1030	710	0.22		0.4	1090	665	0.21
	0.6	900	780	0.25		0.6	955	735	0.23
	0.8	770	845	0.27		0.8	815	795	0.25
	1.0	655	900	0.28		1.0	695	845	0.27
T4	0.2	1515	750	0.36	T4	0.2	1605	705	0.34
	0.4	1420	805	0.39		0.4	1505	755	0.37
	0.6	1315	870	0.42		0.6	1395	820	0.40
	0.8	1205	930	0.45		0.8	1275	875	0.42
	1.0	1105	985	0.48		1.0	1170	925	0.45
T5	0.2	1820	855	0.58	T5	0.2	1930	805	0.55
	0.4	1730	900	0.61		0.4	1835	845	0.57
	0.6	1655	955	0.65		0.6	1755	900	0.61
	0.8	1560	1005	0.68		0.8	1655	945	0.64
	1.0	1460	1055	0.72		1.0	1550	990	0.67

4 Ton

MODELS: DRG0484D AND DRG0487D

STANDARD STATIC DRIVE

Burners High Fire Input: 115,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1015	595	0.15	T1	0.2	1075	560	0.14
	0.4	870	680	0.17		0.4	920	640	0.16
	0.6	735	750	0.19		0.6	780	705	0.18
	0.8	600	815	0.21		0.8	635	765	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1405	715	0.31	T2	0.2	1490	670	0.29
	0.4	1305	775	0.33		0.4	1385	730	0.31
	0.6	1190	840	0.36		0.6	1260	790	0.34
	0.8	1075	905	0.39		0.8	1140	850	0.36
	1.0	970	960	0.41		1.0	1030	900	0.39
T3	0.2	1785	845	0.55	T3	0.2	1890	795	0.52
	0.4	1700	890	0.58		0.4	1800	835	0.55
	0.6	1620	945	0.62		0.6	1715	890	0.58
	0.8	1525	995	0.65		0.8	1615	935	0.61
	1.0	1425	1050	0.69		1.0	1510	985	0.64
T4	0.2	1515	750	0.36	T4	0.2	1605	705	0.34
	0.4	1420	805	0.39		0.4	1505	755	0.37
	0.6	1315	870	0.42		0.6	1395	820	0.40
	0.8	1205	930	0.45		0.8	1275	875	0.42
	1.0	1105	985	0.48		1.0	1170	925	0.45
T5	0.2	1820	855	0.58	T5	0.2	1930	805	0.55
	0.4	1730	900	0.61		0.4	1835	845	0.57
	0.6	1655	955	0.65		0.6	1755	900	0.61
	0.8	1560	1005	0.68		0.8	1655	945	0.64
	1.0	1460	1055	0.72		1.0	1550	990	0.67

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton

MODELS: DRG0484D AND DRG0487D

STANDARD STATIC DRIVE

Burners High Fire Input: 140,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1015	595	0.15	T1	0.2	1075	560	0.14
	0.4	870	680	0.17		0.4	920	640	0.16
	0.6	735	750	0.19		0.6	780	705	0.18
	0.8	600	815	0.21		0.8	635	765	0.20
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1145	630	0.19	T2	0.2	1215	590	0.18
	0.4	1015	710	0.22		0.4	1075	665	0.21
	0.6	885	780	0.24		0.6	940	735	0.23
	0.8	755	845	0.26		0.8	800	795	0.25
	1.0	640	900	0.28		1.0	680	845	0.26
T3	0.2	1930	900	0.70	T3	0.2	2045	845	0.65
	0.4	1830	940	0.73		0.4	1940	885	0.68
	0.6	1770	990	0.77		0.6	1875	930	0.72
	0.8	1680	1030	0.80		0.8	1780	970	0.75
	1.0	1570	1080	0.84		1.0	1665	1015	0.79
T4	0.2	1515	750	0.36	T4	0.2	1605	705	0.34
	0.4	1420	805	0.39		0.4	1505	755	0.37
	0.6	1315	870	0.42		0.6	1395	820	0.40
	0.8	1205	930	0.45		0.8	1275	875	0.42
	1.0	1105	985	0.48		1.0	1170	925	0.45
T5	0.2	1820	855	0.58	T5	0.2	1930	805	0.55
	0.4	1730	900	0.61		0.4	1835	845	0.57
	0.6	1655	955	0.65		0.6	1755	900	0.61
	0.8	1560	1005	0.68		0.8	1655	945	0.64
	1.0	1460	1055	0.72		1.0	1550	990	0.67

5 Ton

MODELS: DRG0604D AND DRG0607D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1240	655	0.22	T1	0.2	1315	615	0.20
	0.4	1115	735	0.24		0.4	1180	690	0.23
	0.6	995	805	0.27		0.6	1055	755	0.25
	0.8	865	865	0.29		0.8	915	815	0.27
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1300	675	0.24	T2	0.2	1380	635	0.23
	0.4	1185	750	0.27		0.4	1255	705	0.25
	0.6	1065	820	0.29		0.6	1130	770	0.27
	0.8	940	880	0.31		0.8	995	825	0.29
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1220	650	0.21	T3	0.2	1295	610	0.20
	0.4	1095	725	0.23		0.4	1160	680	0.22
	0.6	970	800	0.26		0.6	1030	750	0.24
	0.8	845	860	0.28		0.8	895	810	0.26
	1.0	-	-	-		1.0	-	-	-
T4	0.2	1930	890	0.64	T4	0.2	2045	835	0.60
	0.4	1850	935	0.67		0.4	1960	880	0.63
	0.6	1770	985	0.70		0.6	1875	925	0.66
	0.8	1685	1030	0.74		0.8	1785	970	0.69
	1.0	1575	1065	0.76		1.0	1670	1000	0.72
T5	0.2	2165	960	0.91	T5	0.2	2295	900	0.86
	0.4	2085	1000	0.95		0.4	2210	940	0.89
	0.6	2005	1035	0.99		0.6	2125	975	0.93
	0.8	1935	1080	1.03		0.8	2050	1015	0.97
	1.0	1855	1125	1.07		1.0	1965	1060	1.01

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton

MODELS: DRG0604D AND DRG0607D

STANDARD STATIC DRIVE

Burners High Fire Input: 115,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1240	655	0.22	T1	0.2	1315	615	0.20
	0.4	1115	735	0.24		0.4	1180	690	0.23
	0.6	995	805	0.27		0.6	1055	755	0.25
	0.8	865	865	0.29		0.8	915	815	0.27
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1300	675	0.24	T2	0.2	1380	635	0.23
	0.4	1185	750	0.27		0.4	1255	705	0.25
	0.6	1065	820	0.29		0.6	1130	770	0.27
	0.8	940	880	0.31		0.8	995	825	0.29
	1.0	-	-	-		1.0	-	-	-
T3	0.2	1695	815	0.46	T3	0.2	1795	765	0.43
	0.4	1605	865	0.48		0.4	1700	815	0.46
	0.6	1515	925	0.52		0.6	1605	870	0.49
	0.8	1415	980	0.55		0.8	1500	920	0.51
	1.0	1295	1005	0.56		1.0	1375	945	0.53
T4	0.2	1930	890	0.64	T4	0.2	2045	835	0.60
	0.4	1850	935	0.67		0.4	1960	880	0.63
	0.6	1770	985	0.70		0.6	1875	925	0.66
	0.8	1685	1030	0.74		0.8	1785	970	0.69
	1.0	1575	1065	0.76		1.0	1670	1000	0.72
T5	0.2	2165	960	0.91	T5	0.2	2295	900	0.86
	0.4	2085	1000	0.95		0.4	2210	940	0.89
	0.6	2005	1035	0.99		0.6	2125	975	0.93
	0.8	1935	1080	1.03		0.8	2050	1015	0.97
	1.0	1855	1125	1.07		1.0	1965	1060	1.01

5 Ton

MODELS: DRG0604D AND DRG0607D

STANDARD STATIC DRIVE

Burners High Fire Input: 150,000 BTU/HR

DOWN FLOW					HORIZONTAL				
SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP	SPEED TAP	EXTERNAL STATIC PRESSURE (ESP), IN W.C.	SCFM	RPM	BHP
T1	0.2	1240	655	0.22	T1	0.2	1315	615	0.20
	0.4	1115	735	0.24		0.4	1180	690	0.23
	0.6	995	805	0.27		0.6	1055	755	0.25
	0.8	865	865	0.29		0.8	915	815	0.27
	1.0	-	-	-		1.0	-	-	-
T2	0.2	1790	845	0.52	T2	0.2	1895	795	0.49
	0.4	1705	895	0.55		0.4	1805	840	0.52
	0.6	1625	950	0.59		0.6	1725	895	0.55
	0.8	1530	1000	0.62		0.8	1620	940	0.58
	1.0	1410	1030	0.64		1.0	1495	970	0.60
T3	0.2	1940	895	0.65	T3	0.2	2055	840	0.61
	0.4	1865	940	0.68		0.4	1975	885	0.64
	0.6	1785	990	0.72		0.6	1890	930	0.68
	0.8	1700	1035	0.75		0.8	1800	975	0.71
	1.0	1595	1070	0.78		1.0	1690	1005	0.73
T4	0.2	1930	890	0.64	T4	0.2	2045	835	0.60
	0.4	1850	935	0.67		0.4	1960	880	0.63
	0.6	1770	985	0.70		0.6	1875	925	0.66
	0.8	1685	1030	0.74		0.8	1785	970	0.69
	1.0	1575	1065	0.76		1.0	1670	1000	0.72
T5	0.2	2165	960	0.91	T5	0.2	2295	900	0.86
	0.4	2085	1000	0.95		0.4	2210	940	0.89
	0.6	2005	1035	0.99		0.6	2125	975	0.93
	0.8	1935	1080	1.03		0.8	2050	1015	0.97
	1.0	1855	1125	1.07		1.0	1965	1060	1.01

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton

MODELS: DRG0723D, DRG0724D AND DRG0727D

STANDARD STATIC DRIVE

Burners High Fire Input: 70,000 BTU/HR

Down Flow					Horizontal Flow				
Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	1342	623	0.22	T1	0.2	1369	662	0.24
	0.4	1212	695	0.25		0.4	1237	738	0.26
	0.6	1083	773	0.28		0.6	1105	821	0.29
	0.8	948	843	0.30		0.8	967	895	0.32
	1.0	817	914	0.33		1.0	834	972	0.35
T2	0.2	1342	623	0.22	T2	0.2	1369	662	0.24
	0.4	1212	695	0.25		0.4	1237	738	0.26
	0.6	1083	773	0.28		0.6	1105	821	0.29
	0.8	948	843	0.30		0.8	967	895	0.32
	1.0	817	914	0.33		1.0	834	972	0.35
T3	0.2	1994	811	0.56	T3	0.2	2035	861	0.59
	0.4	1890	862	0.59		0.4	1929	916	0.63
	0.6	1791	913	0.63		0.6	1828	970	0.67
	0.8	1693	965	0.67		0.8	1727	1025	0.71
	1.0	1599	1023	0.71		1.0	1632	1087	0.75
T4	0.2	2216	882	0.73	T4	0.2	2261	937	0.78
	0.4	2135	929	0.77		0.4	2179	987	0.82
	0.6	2037	975	0.81		0.6	2079	1036	0.86
	0.8	1944	1020	0.85		0.8	1984	1084	0.90
	1.0	1849	1067	0.89		1.0	1887	1133	0.94
T5	0.2	2370	931	0.89	T5	0.2	2419	990	0.94
	0.4	2297	975	0.93		0.4	2344	1036	0.99
	0.6	2204	1020	0.97		0.6	2249	1083	1.03
	0.8	2119	1060	1.01		0.8	2162	1126	1.07
	1.0	2010	1102	1.05		1.0	2051	1171	1.11

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

6 Ton

MODELS: DRG0723D, DRG0724D AND DRG0727D

STANDARD STATIC DRIVE

Burners High Fire Input: 125,000 and 150,000 BTU/HR

Down Flow					Horizontal Flow				
Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	1342	623	0.22	T1	0.2	1369	662	0.24
	0.4	1212	695	0.25		0.4	1237	738	0.26
	0.6	1083	773	0.28		0.6	1105	821	0.29
	0.8	948	843	0.30		0.8	967	895	0.32
	1.0	817	914	0.33		1.0	834	972	0.35
T2	0.2	2216	882	0.73	T2	0.2	2261	937	0.78
	0.4	2135	929	0.77		0.4	2179	987	0.82
	0.6	2037	975	0.81		0.6	2079	1036	0.86
	0.8	1944	1020	0.85		0.8	1984	1084	0.90
	1.0	1849	1067	0.89		1.0	1887	1133	0.94
T3	0.2	2216	882	0.73	T3	0.2	2261	937	0.78
	0.4	2135	929	0.77		0.4	2179	987	0.82
	0.6	2037	975	0.81		0.6	2079	1036	0.86
	0.8	1944	1020	0.85		0.8	1984	1084	0.90
	1.0	1849	1067	0.89		1.0	1887	1133	0.94
T4	0.2	2293	907	0.81	T4	0.2	2340	963	0.86
	0.4	2216	952	0.85		0.4	2262	1011	0.90
	0.6	2121	997	0.89		0.6	2164	1059	0.95
	0.8	2032	1040	0.93		0.8	2073	1105	0.99
	1.0	1930	1084	0.97		1.0	1969	1152	1.03
T5	0.2	2370	931	0.89	T5	0.2	2419	990	0.94
	0.4	2297	975	0.93		0.4	2344	1036	0.99
	0.6	2204	1020	0.97		0.6	2249	1083	1.03
	0.8	2119	1060	1.01		0.8	2162	1126	1.07
	1.0	2010	1102	1.05		1.0	2051	1171	1.11

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

3 TON - HIGH STATIC DRIVE

MODELS: DRG0363W, DRG0364W, DRG0367W

45,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	949	541	0.12	T6	0.2	1200	613	0.16
	0.4	792	635	0.14		0.4	1096	688	0.18
	0.6	647	716	0.15		0.6	953	768	0.20
	0.8	495	779	0.17		0.8	848	836	0.22
	1.0	385	843	0.18		1.0	735	897	0.23
	1.2	-	-	-		1.2	608	949	0.25
	1.4	-	-	-		1.4	515	1002	0.26
	1.6	-	-	-		1.6	400	1042	0.27
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2	0.2	1200	613	0.16	T7	0.2	1448	681	0.27
	0.4	1096	688	0.18		0.4	1351	744	0.29
	0.6	953	768	0.20		0.6	1245	812	0.32
	0.8	848	836	0.22		0.8	1119	881	0.35
	1.0	735	897	0.23		1.0	1018	938	0.37
	1.2	608	949	0.25		1.2	910	996	0.39
	1.4	515	1002	0.26		1.4	813	1045	0.41
	1.6	400	1042	0.27		1.6	704	1093	0.43
	1.8	-	-	-		1.8	616	1140	0.45
	2.0	-	-	-		2.0	521	1178	0.46
T3	0.2	-	-	-	T8	0.2	-	-	-
	0.4	-	-	-		0.4	1472	793	0.45
	0.6	1483	874	0.54		0.6	1389	851	0.49
	0.8	1397	934	0.58		0.8	1289	917	0.52
	1.0	1287	998	0.62		1.0	1179	978	0.56
	1.2	1195	1047	0.65		1.2	1089	1027	0.59
	1.4	1108	1093	0.68		1.4	996	1086	0.62
	1.6	1023	1147	0.71		1.6	913	1129	0.64
	1.8	940	1190	0.74		1.8	820	1174	0.67
	2.0	841	1233	0.76		2.0	722	1214	0.69
T4	0.2	-	-	-	T9	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	1483	874	0.54
	0.8	-	-	-		0.8	1397	934	0.58
	1.0	1473	1021	0.85		1.0	1287	998	0.62
	1.2	1365	1079	0.90		1.2	1195	1047	0.65
	1.4	1277	1125	0.94		1.4	1108	1093	0.68
	1.6	1195	1168	0.97		1.6	1023	1147	0.71
	1.8	1113	1221	1.02		1.8	940	1190	0.74
	2.0	1044	1263	1.05		2.0	841	1233	0.76
T5	0.2	-	-	-	T10	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2.0	1139	1280	1.22		2.0	1139	1280	1.22

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BH

3 TON - HIGH STATIC DRIVE

MODELS: DRG0363W, DRG0364W, DRG0367W

45,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	969	575	0.12	T1H	0.2	1224	652	0.17
	0.4	808	675	0.14		0.4	1118	731	0.19
	0.6	660	762	0.16		0.6	972	817	0.21
	0.8	505	828	0.18		0.8	865	889	0.23
	1.0	392	897	0.19		1.0	750	954	0.25
	1.2	-	-	-		1.2	620	1010	0.26
	1.4	-	-	-		1.4	526	1066	0.28
	1.6	-	-	-		1.6	408	1109	0.29
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1224	652	0.17	T2H	0.2	-	-	-
	0.4	1118	731	0.19		0.4	-	-	-
	0.6	972	817	0.21		0.6	1477	906	0.52
	0.8	865	889	0.23		0.8	1372	976	0.56
	1.0	750	954	0.25		1.0	1254	1041	0.59
	1.2	620	1010	0.26		1.2	1159	1092	0.62
	1.4	526	1066	0.28		1.4	1060	1155	0.66
	1.6	408	1109	0.29		1.6	972	1201	0.69
	1.8	-	-	-		1.8	872	1249	0.71
	2.0	-	-	-		2.0	768	1291	0.74
T3C	0.2	-	-	-	T3H	0.2	1477	724	0.28
	0.4	-	-	-		0.4	1378	792	0.31
	0.6	-	-	-		0.6	1271	864	0.34
	0.8	1487	993	0.61		0.8	1142	937	0.37
	1.0	1369	1062	0.66		1.0	1039	998	0.39
	1.2	1271	1114	0.69		1.2	929	1060	0.42
	1.4	1179	1163	0.72		1.4	829	1112	0.44
	1.6	1088	1220	0.76		1.6	718	1163	0.46
	1.8	1000	1266	0.78		1.8	628	1213	0.48
	2.0	895	1312	0.81		2.0	532	1253	0.49
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	1487	993	0.61
	1.0	-	-	-		1.0	1369	1062	0.66
	1.2	1452	1148	0.96		1.2	1271	1114	0.69
	1.4	1359	1197	1.00		1.4	1179	1163	0.72
	1.6	1272	1243	1.04		1.6	1088	1220	0.76
	1.8	1184	1299	1.08		1.8	1000	1266	0.78
	2.0	1111	1344	1.12		2.0	895	1312	0.81
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	-	-	-		1.2	-	-	-
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2.0	1212	1361	1.30		2.0	1212	1361	1.30

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

APPENDIX A BLOWER PERFORMANCE DATA

3 TON - HIGH STATIC DRIVE

MODELS: DRG0363W, DRG0364W, DRG0367W

70,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	949	541	0.12	T1H	0.2	1200	613	0.16
	0.4	792	635	0.14		0.4	1096	688	0.18
	0.6	647	716	0.15		0.6	953	768	0.20
	0.8	495	779	0.17		0.8	848	836	0.22
	1.0	385	843	0.18		1.0	735	897	0.23
	1.2	-	-	-		1.2	608	949	0.25
	1.4	-	-	-		1.4	515	1002	0.26
	1.6	-	-	-		1.6	400	1042	0.27
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1200	613	0.16	T2H	0.2	-	-	-
	0.4	1096	688	0.18		0.4	-	-	-
	0.6	953	768	0.20		0.6	1483	874	0.54
	0.8	848	836	0.22		0.8	1397	934	0.58
	1.0	735	897	0.23		1.0	1287	998	0.62
	1.2	608	949	0.25		1.2	1195	1047	0.65
	1.4	515	1002	0.26		1.4	1108	1093	0.68
	1.6	400	1042	0.27		1.6	1023	1147	0.71
	1.8	-	-	-		1.8	940	1190	0.74
	2.0	-	-	-		2.0	841	1233	0.76
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	-	-	-		0.4	1446	768	0.48
	0.6	1483	874	0.54		0.6	1351	832	0.51
	0.8	1397	934	0.58		0.8	1223	901	0.56
	1.0	1287	998	0.62		1.0	1119	957	0.59
	1.2	1195	1047	0.65		1.2	1028	1010	0.63
	1.4	1108	1093	0.68		1.4	925	1064	0.66
	1.6	1023	1147	0.71		1.6	832	1110	0.69
	1.8	940	1190	0.74		1.8	722	1155	0.71
	2.0	841	1233	0.76		2.0	647	1200	0.74
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	1486	950	0.42
	1.0	1473	1021	0.85		1.0	1376	1012	0.45
	1.2	1365	1079	0.90		1.2	1280	1066	0.47
	1.4	1277	1125	0.94		1.4	1198	1112	0.49
	1.6	1195	1168	0.97		1.6	1113	1158	0.51
	1.8	1113	1221	1.02		1.8	1031	1205	0.53
	2.0	1044	1263	1.05		2.0	947	1244	0.55
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2.0	1139	1280	1.22		2.0	1139	1280	1.22

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

3 TON - HIGH STATIC DRIVE

MODELS: DRG0363W, DRG0364W, DRG0367W

70,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1344	684	0.20	T1H	0.2	1224	652	0.17
	0.4	1246	759	0.23		0.4	1118	731	0.19
	0.6	1105	842	0.25		0.6	972	817	0.21
	0.8	990	909	0.27		0.8	865	889	0.23
	1.0	876	978	0.29		1.0	750	954	0.25
	1.2	774	1033	0.31		1.2	620	1010	0.26
	1.4	647	1087	0.32		1.4	526	1066	0.28
	1.6	562	1140	0.34		1.6	408	1109	0.29
	1.8	460	1182	0.35		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	-	-	-	T2H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	1477	906	0.52		0.6	-	-	-
	0.8	1372	976	0.56		0.8	1487	993	0.61
	1.0	1254	1041	0.59		1.0	1369	1062	0.66
	1.2	1159	1092	0.62		1.2	1271	1114	0.69
	1.4	1060	1155	0.66		1.4	1179	1163	0.72
	1.6	972	1201	0.69		1.6	1088	1220	0.76
	1.8	872	1249	0.71		1.8	1000	1266	0.78
	2.0	768	1291	0.74		2.0	895	1312	0.81
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	-	-	-		0.4	1475	817	0.51
	0.6	-	-	-		0.6	1379	885	0.55
	0.8	1487	993	0.61		0.8	1248	958	0.59
	1.0	1369	1062	0.66		1.0	1142	1019	0.63
	1.2	1271	1114	0.69		1.2	1049	1075	0.67
	1.4	1179	1163	0.72		1.4	944	1132	0.70
	1.6	1088	1220	0.76		1.6	849	1181	0.73
	1.8	1000	1266	0.78		1.8	737	1229	0.76
	2.0	895	1312	0.81		2.0	660	1277	0.79
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	1464	1077	0.47
	1.2	1452	1148	0.96		1.2	1362	1134	0.50
	1.4	1359	1197	1.00		1.4	1275	1183	0.52
	1.6	1272	1243	1.04		1.6	1184	1232	0.54
	1.8	1184	1299	1.08		1.8	1096	1282	0.56
	2.0	1111	1344	1.12		2.0	1007	1323	0.58
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	-	-	-		1.2	-	-	-
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2.0	1212	1361	1.30		2.0	1212	1361	1.30

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

APPENDIX A BLOWER PERFORMANCE DATA

3 TON - HIGH STATIC DRIVE

MODELS: DRG0363W, DRG0364W, DRG0367W

115,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	949	541	0.12	T1H	0.2	-	-	-
	0.4	792	635	0.14		0.4	1446	768	0.48
	0.6	647	716	0.15		0.6	1351	832	0.51
	0.8	495	779	0.17		0.8	1223	901	0.56
	1.0	385	843	0.18		1.0	1119	957	0.59
	1.2	-	-	-		1.2	1028	1010	0.63
	1.4	-	-	-		1.4	925	1064	0.66
	1.6	-	-	-		1.6	832	1110	0.69
	1.8	-	-	-		1.8	722	1155	0.71
	2.0	-	-	-		2.0	647	1200	0.74
T2C	0.2	1200	613	0.16	T2H	0.2	-	-	-
	0.4	1096	688	0.18		0.4	-	-	-
	0.6	953	768	0.20		0.6	1483	874	0.54
	0.8	848	836	0.22		0.8	1397	934	0.58
	1.0	735	897	0.23		1.0	1287	998	0.62
	1.2	608	949	0.25		1.2	1195	1047	0.65
	1.4	515	1002	0.26		1.4	1108	1093	0.68
	1.6	400	1042	0.27		1.6	1023	1147	0.71
	1.8	-	-	-		1.8	940	1190	0.74
	2.0	-	-	-		2.0	841	1233	0.76
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	1483	874	0.54		0.6	-	-	-
	0.8	1397	934	0.58		0.8	1486	950	0.68
	1.0	1287	998	0.62		1.0	1376	1012	0.72
	1.2	1195	1047	0.65		1.2	1280	1066	0.76
	1.4	1108	1093	0.68		1.4	1198	1112	0.79
	1.6	1023	1147	0.71		1.6	1113	1158	0.83
	1.8	940	1190	0.74		1.8	1031	1205	0.86
	2.0	841	1233	0.76		2.0	947	1244	0.89
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	1473	1021	0.85		1.0	1473	1021	0.85
	1.2	1365	1079	0.90		1.2	1365	1079	0.90
	1.4	1277	1125	0.94		1.4	1277	1125	0.94
	1.6	1195	1168	0.97		1.6	1195	1168	0.97
	1.8	1113	1221	1.02		1.8	1113	1221	1.02
	2.0	1044	1263	1.05		2.0	1044	1263	1.05
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1468	1100	1.05		1.2	1468	1100	1.05
	1.4	1378	1148	1.09		1.4	1378	1148	1.09
	1.6	1298	1191	1.13		1.6	1298	1191	1.13
	1.8	1219	1232	1.17		1.8	1219	1232	1.17
	2.0	1139	1280	1.22		2.0	1139	1280	1.22

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

3 TON - HIGH STATIC DRIVE

MODELS: DRG0363W, DRG0364W, DRG0367W

115,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	969	575	0.12	T1H	0.2	-	-	-
	0.4	808	675	0.14		0.4	1475	817	0.51
	0.6	660	762	0.16		0.6	1379	885	0.55
	0.8	505	828	0.18		0.8	1248	958	0.59
	1.0	392	897	0.19		1.0	1142	1019	0.63
	1.2	-	-	-		1.2	1049	1075	0.67
	1.4	-	-	-		1.4	944	1132	0.70
	1.6	-	-	-		1.6	849	1181	0.73
	1.8	-	-	-		1.8	737	1229	0.76
	2.0	-	-	-		2.0	660	1277	0.79
T2C	0.2	1224	652	0.17	T2H	0.2	-	-	-
	0.4	1118	731	0.19		0.4	-	-	-
	0.6	972	817	0.21		0.6	-	-	-
	0.8	865	889	0.23		0.8	1487	993	0.61
	1.0	750	954	0.25		1.0	1369	1062	0.66
	1.2	620	1010	0.26		1.2	1271	1114	0.69
	1.4	526	1066	0.28		1.4	1179	1163	0.72
	1.6	408	1109	0.29		1.6	1088	1220	0.76
	1.8	-	-	-		1.8	1000	1266	0.78
	2.0	-	-	-		2.0	895	1312	0.81
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	1487	993	0.61		0.8	-	-	-
	1.0	1369	1062	0.66		1.0	1464	1077	0.77
	1.2	1271	1114	0.69		1.2	1362	1134	0.81
	1.4	1179	1163	0.72		1.4	1275	1183	0.84
	1.6	1088	1220	0.76		1.6	1184	1232	0.88
	1.8	1000	1266	0.78		1.8	1096	1282	0.92
	2.0	895	1312	0.81		2.0	1007	1323	0.94
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1452	1148	0.96		1.2	1452	1148	0.96
	1.4	1359	1197	1.00		1.4	1359	1197	1.00
	1.6	1272	1243	1.04		1.6	1272	1243	1.04
	1.8	1184	1299	1.08		1.8	1184	1299	1.08
	2.0	1111	1344	1.12		2.0	1111	1344	1.12
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	-	-	-		1.2	-	-	-
	1.4	1466	1222	1.16		1.4	1466	1222	1.16
	1.6	1380	1267	1.21		1.6	1380	1267	1.21
	1.8	1297	1310	1.25		1.8	1297	1310	1.25
	2.0	1212	1361	1.30		2.0	1212	1361	1.30

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton - High Static Drive

MODELS: DRG0483W, DRH0484W, DRH0487W

70,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1433	679	0.29	T1H	0.2	1357	657	0.26
	0.4	1326	744	0.32		0.4	1255	720	0.28
	0.6	1192	822	0.35		0.6	1110	804	0.32
	0.8	1092	875	0.37		0.8	1015	856	0.34
	1.0	1007	927	0.40		1.0	924	914	0.36
	1.2	880	991	0.42		1.2	791	978	0.38
	1.4	789	1042	0.45		1.4	700	1028	0.40
	1.6	692	1090	0.47		1.6	600	1079	0.42
	1.8	612	1134	0.49		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1764	765	0.46	T2H	0.2	1433	679	0.29
	0.4	1673	827	0.50		0.4	1326	744	0.32
	0.6	1589	879	0.53		0.6	1192	822	0.35
	0.8	1510	928	0.56		0.8	1092	875	0.37
	1.0	1369	995	0.60		1.0	1007	927	0.40
	1.2	1285	1040	0.63		1.2	880	991	0.42
	1.4	1202	1085	0.66		1.4	789	1042	0.45
	1.6	1130	1133	0.69		1.6	692	1090	0.47
	1.8	1044	1178	0.71		1.8	612	1134	0.49
	2.0	918	1233	0.75		2.0	-	-	-
T3C	0.2	-	-	-	T3H	0.2	1581	711	0.36
	0.4	1940	898	0.69		0.4	1476	779	0.39
	0.6	1854	949	0.73		0.6	1391	832	0.42
	0.8	1782	993	0.77		0.8	1250	905	0.45
	1.0	1711	1034	0.80		1.0	1160	953	0.48
	1.2	1576	1102	0.85		1.2	1081	1001	0.50
	1.4	1494	1143	0.88		1.4	1000	1045	0.52
	1.6	1419	1183	0.91		1.6	909	1099	0.55
	1.8	1349	1225	0.95		1.8	783	1153	0.58
	2.0	1282	1266	0.98		2.0	686	1199	0.60
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	1940	898	0.69
	0.6	1992	986	0.86		0.6	1854	949	0.73
	0.8	1921	1026	0.89		0.8	1782	993	0.77
	1.0	1848	1066	0.93		1.0	1711	1034	0.80
	1.2	1742	1123	0.98		1.2	1576	1102	0.85
	1.4	1640	1174	1.02		1.4	1494	1143	0.88
	1.6	1580	1214	1.05		1.6	1419	1183	0.91
	1.8	1504	1251	1.09		1.8	1349	1225	0.95
	2.0	1440	1289	1.12		2.0	1282	1266	0.98
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	1978	1096	1.04		1.0	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2.0	1550	1311	1.25		2.0	1550	1311	1.25

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
MAX BHP 1.2

4 Ton - High Static Drive

MODELS: DRG0483W, DRH0484W, DRH0487W

70,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1462	722	0.31	T1H	0.2	1385	699	0.27
	0.4	1353	791	0.34		0.4	1281	766	0.30
	0.6	1216	874	0.37		0.6	1133	855	0.34
	0.8	1114	931	0.40		0.8	1036	911	0.36
	1.0	1028	986	0.42		1.0	943	972	0.38
	1.2	898	1054	0.45		1.2	807	1040	0.41
	1.4	805	1109	0.48		1.4	714	1094	0.43
	1.6	706	1160	0.50		1.6	612	1148	0.45
	1.8	624	1206	0.52		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1800	814	0.49	T2H	0.2	1462	722	0.31
	0.4	1707	880	0.53		0.4	1353	791	0.34
	0.6	1621	935	0.57		0.6	1216	874	0.37
	0.8	1541	987	0.60		0.8	1114	931	0.40
	1.0	1397	1058	0.64		1.0	1028	986	0.42
	1.2	1311	1106	0.67		1.2	898	1054	0.45
	1.4	1227	1154	0.70		1.4	805	1109	0.48
	1.6	1153	1205	0.73		1.6	706	1160	0.50
	1.8	1065	1253	0.76		1.8	624	1206	0.52
	2.0	937	1312	0.80		2.0	-	-	-
T3C	0.2	-	-	-	T3H	0.2	1613	756	0.38
	0.4	1980	955	0.74		0.4	1506	829	0.41
	0.6	1892	1010	0.78		0.6	1419	885	0.44
	0.8	1818	1056	0.82		0.8	1276	963	0.48
	1.0	1746	1100	0.85		1.0	1184	1014	0.51
	1.2	1608	1172	0.91		1.2	1103	1065	0.53
	1.4	1524	1216	0.94		1.4	1020	1112	0.56
	1.6	1448	1258	0.97		1.6	928	1169	0.58
	1.8	1377	1303	1.01		1.8	799	1227	0.61
	2.0	1308	1347	1.04		2.0	700	1276	0.64
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	1980	955	0.74
	0.6	-	-	-		0.6	1892	1010	0.78
	0.8	1960	1092	0.95		0.8	1818	1056	0.82
	1.0	1886	1134	0.99		1.0	1746	1100	0.85
	1.2	1778	1195	1.04		1.2	1608	1172	0.91
	1.4	1673	1249	1.09		1.4	1524	1216	0.94
	1.6	1612	1291	1.12		1.6	1448	1258	0.97
	1.8	1535	1331	1.16		1.8	1377	1303	1.01
	2.0	1469	1371	1.19		2.0	1308	1347	1.04
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2.0	1582	1395	1.33		2.0	1582	1395	1.33

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

APPENDIX A BLOWER PERFORMANCE DATA

4 TON - HIGH STATIC DRIVE

MODELS: DRG0483W, DRH0484W, DRH0487W

115,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1433	679	0.29	T1H	0.2	1433	679	0.29
	0.4	1326	744	0.32		0.4	1326	744	0.32
	0.6	1192	822	0.35		0.6	1192	822	0.35
	0.8	1092	875	0.37		0.8	1092	875	0.37
	1.0	1007	927	0.40		1.0	1007	927	0.40
	1.2	880	991	0.42		1.2	880	991	0.42
	1.4	789	1042	0.45		1.4	789	1042	0.45
	1.6	692	1090	0.47		1.6	692	1090	0.47
	1.8	612	1134	0.49		1.8	612	1134	0.49
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1764	765	0.46	T2H	0.2	1764	765	0.46
	0.4	1673	827	0.50		0.4	1673	827	0.50
	0.6	1589	879	0.53		0.6	1589	879	0.53
	0.8	1510	928	0.56		0.8	1510	928	0.56
	1.0	1369	995	0.60		1.0	1369	995	0.60
	1.2	1285	1040	0.63		1.2	1285	1040	0.63
	1.4	1202	1085	0.66		1.4	1202	1085	0.66
	1.6	1130	1133	0.69		1.6	1130	1133	0.69
	1.8	1044	1178	0.71		1.8	1044	1178	0.71
	2.0	918	1233	0.75		2.0	918	1233	0.75
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	1940	898	0.69		0.4	1940	898	0.69
	0.6	1854	949	0.73		0.6	1854	949	0.73
	0.8	1782	993	0.77		0.8	1782	993	0.77
	1.0	1711	1034	0.80		1.0	1711	1034	0.80
	1.2	1576	1102	0.85		1.2	1576	1102	0.85
	1.4	1494	1143	0.88		1.4	1494	1143	0.88
	1.6	1419	1183	0.91		1.6	1419	1183	0.91
	1.8	1349	1225	0.95		1.8	1349	1225	0.95
	2.0	1282	1266	0.98		2.0	1282	1266	0.98
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	1992	986	0.86		0.6	1992	986	0.86
	0.8	1921	1026	0.89		0.8	1921	1026	0.89
	1.0	1848	1066	0.93		1.0	1848	1066	0.93
	1.2	1742	1123	0.98		1.2	1742	1123	0.98
	1.4	1640	1174	1.02		1.4	1640	1174	1.02
	1.6	1580	1214	1.05		1.6	1580	1214	1.05
	1.8	1504	1251	1.09		1.8	1504	1251	1.09
	2.0	1440	1289	1.12		2.0	1440	1289	1.12
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	1978	1096	1.04		1.0	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2.0	1550	1311	1.25		2.0	1550	1311	1.25

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

4 TON - HIGH STATIC DRIVE

MODELS: DRG0483W, DRH0484W, DRH0487W

115,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1462	722	0.31	T1H	0.2	1462	722	0.31
	0.4	1353	791	0.34		0.4	1353	791	0.34
	0.6	1216	874	0.37		0.6	1216	874	0.37
	0.8	1114	931	0.40		0.8	1114	931	0.40
	1.0	1028	986	0.42		1.0	1028	986	0.42
	1.2	898	1054	0.45		1.2	898	1054	0.45
	1.4	805	1109	0.48		1.4	805	1109	0.48
	1.6	706	1160	0.50		1.6	706	1160	0.50
	1.8	624	1206	0.52		1.8	624	1206	0.52
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1800	814	0.49	T2H	0.2	1800	814	0.49
	0.4	1707	880	0.53		0.4	1707	880	0.53
	0.6	1621	935	0.57		0.6	1621	935	0.57
	0.8	1541	987	0.60		0.8	1541	987	0.60
	1.0	1397	1058	0.64		1.0	1397	1058	0.64
	1.2	1311	1106	0.67		1.2	1311	1106	0.67
	1.4	1227	1154	0.70		1.4	1227	1154	0.70
	1.6	1153	1205	0.73		1.6	1153	1205	0.73
	1.8	1065	1253	0.76		1.8	1065	1253	0.76
	2.0	937	1312	0.80		2.0	937	1312	0.80
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	1980	955	0.74		0.4	1980	955	0.74
	0.6	1892	1010	0.78		0.6	1892	1010	0.78
	0.8	1818	1056	0.82		0.8	1818	1056	0.82
	1.0	1746	1100	0.85		1.0	1746	1100	0.85
	1.2	1608	1172	0.91		1.2	1608	1172	0.91
	1.4	1524	1216	0.94		1.4	1524	1216	0.94
	1.6	1448	1258	0.97		1.6	1448	1258	0.97
	1.8	1377	1303	1.01		1.8	1377	1303	1.01
	2.0	1308	1347	1.04		2.0	1308	1347	1.04
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	1960	1092	0.95		0.8	1960	1092	0.95
	1.0	1886	1134	0.99		1.0	1886	1134	0.99
	1.2	1778	1195	1.04		1.2	1778	1195	1.04
	1.4	1673	1249	1.09		1.4	1673	1249	1.09
	1.6	1612	1291	1.12		1.6	1612	1291	1.12
	1.8	1535	1331	1.16		1.8	1535	1331	1.16
	2.0	1469	1371	1.19		2.0	1469	1371	1.19
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2.0	1582	1395	1.33		2.0	1582	1395	1.33

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating
Max BHP 1.2

APPENDIX A BLOWER PERFORMANCE DATA

4 Ton - High Static Drive

MODELS: DRG0483W, DRH0484W, DRH0487W

140,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1433	679	0.29	T1H	0.2	1357	657	0.26
	0.4	1326	744	0.32		0.4	1255	720	0.28
	0.6	1192	822	0.35		0.6	1110	804	0.32
	0.8	1092	875	0.37		0.8	1015	856	0.34
	1.0	1007	927	0.40		1.0	924	914	0.36
	1.2	880	991	0.42		1.2	791	978	0.38
	1.4	789	1042	0.45		1.4	700	1028	0.40
	1.6	692	1090	0.47		1.6	600	1079	0.42
	1.8	612	1134	0.49		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1764	765	0.46	T2H	0.2	1433	679	0.29
	0.4	1673	827	0.50		0.4	1326	744	0.32
	0.6	1589	879	0.53		0.6	1192	822	0.35
	0.8	1510	928	0.56		0.8	1092	875	0.37
	1.0	1369	995	0.60		1.0	1007	927	0.40
	1.2	1285	1040	0.63		1.2	880	991	0.42
	1.4	1202	1085	0.66		1.4	789	1042	0.45
	1.6	1130	1133	0.69		1.6	692	1090	0.47
	1.8	1044	1178	0.71		1.8	612	1134	0.49
	2.0	918	1233	0.75		2.0	-	-	-
T3C	0.2	-	-	-	T3H	0.2	1764	765	0.46
	0.4	1940	898	0.69		0.4	1673	827	0.50
	0.6	1854	949	0.73		0.6	1589	879	0.53
	0.8	1782	993	0.77		0.8	1510	928	0.56
	1.0	1711	1034	0.80		1.0	1369	995	0.60
	1.2	1576	1102	0.85		1.2	1285	1040	0.63
	1.4	1494	1143	0.88		1.4	1202	1085	0.66
	1.6	1419	1183	0.91		1.6	1130	1133	0.69
	1.8	1349	1225	0.95		1.8	1044	1178	0.71
	2.0	1282	1266	0.98		2.0	918	1233	0.75
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	1992	986	0.86		0.6	1992	986	0.86
	0.8	1921	1026	0.89		0.8	1921	1026	0.89
	1.0	1848	1066	0.93		1.0	1848	1066	0.93
	1.2	1742	1123	0.98		1.2	1742	1123	0.98
	1.4	1640	1174	1.02		1.4	1640	1174	1.02
	1.6	1580	1214	1.05		1.6	1580	1214	1.05
	1.8	1504	1251	1.09		1.8	1504	1251	1.09
	2.0	1440	1289	1.12		2.0	1440	1289	1.12
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	1978	1096	1.04		1.0	1978	1096	1.04
	1.2	1909	1136	1.08		1.2	1909	1136	1.08
	1.4	1786	1196	1.14		1.4	1786	1196	1.14
	1.6	1698	1239	1.18		1.6	1698	1239	1.18
	1.8	1622	1277	1.22		1.8	1622	1277	1.22
	2.0	1550	1311	1.25		2.0	1550	1311	1.25

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton)
that is not recommended for High Stage cooling or heating
Max BHP 1.2

4 Ton - High Static Drive

MODELS: DRG0483W, DRH0484W, DRH0487W

140,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1462	722	0.31	T1H	0.2	1385	699	0.27
	0.4	1353	791	0.34		0.4	1281	766	0.30
	0.6	1216	874	0.37		0.6	1133	855	0.34
	0.8	1114	931	0.40		0.8	1036	911	0.36
	1.0	1028	986	0.42		1.0	943	972	0.38
	1.2	898	1054	0.45		1.2	807	1040	0.41
	1.4	805	1109	0.48		1.4	714	1094	0.43
	1.6	706	1160	0.50		1.6	612	1148	0.45
	1.8	624	1206	0.52		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1800	814	0.49	T2H	0.2	1462	722	0.31
	0.4	1707	880	0.53		0.4	1353	791	0.34
	0.6	1621	935	0.57		0.6	1216	874	0.37
	0.8	1541	987	0.60		0.8	1114	931	0.40
	1.0	1397	1058	0.64		1.0	1028	986	0.42
	1.2	1311	1106	0.67		1.2	898	1054	0.45
	1.4	1227	1154	0.70		1.4	805	1109	0.48
	1.6	1153	1205	0.73		1.6	706	1160	0.50
	1.8	1065	1253	0.76		1.8	624	1206	0.52
	2.0	937	1312	0.80		2.0	-	-	-
T3C	0.2	-	-	-	T3H	0.2	-	-	-
	0.4	1980	955	0.74		0.4	1980	955	0.74
	0.6	1892	1010	0.78		0.6	1892	1010	0.78
	0.8	1818	1056	0.82		0.8	1818	1056	0.82
	1.0	1746	1100	0.85		1.0	1746	1100	0.85
	1.2	1608	1172	0.91		1.2	1608	1172	0.91
	1.4	1524	1216	0.94		1.4	1524	1216	0.94
	1.6	1448	1258	0.97		1.6	1448	1258	0.97
	1.8	1377	1303	1.01		1.8	1377	1303	1.01
	2.0	1308	1347	1.04		2.0	1308	1347	1.04
T4C	0.2	-	-	-	T4H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	1960	1092	0.95		0.8	1960	1092	0.95
	1.0	1886	1134	0.99		1.0	1886	1134	0.99
	1.2	1778	1195	1.04		1.2	1778	1195	1.04
	1.4	1673	1249	1.09		1.4	1673	1249	1.09
	1.6	1612	1291	1.12		1.6	1612	1291	1.12
	1.8	1535	1331	1.16		1.8	1535	1331	1.16
	2.0	1469	1371	1.19		2.0	1469	1371	1.19
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	-	-	-		0.8	-	-	-
	1.0	-	-	-		1.0	-	-	-
	1.2	1948	1208	1.15		1.2	1948	1208	1.15
	1.4	1822	1272	1.21		1.4	1822	1272	1.21
	1.6	1733	1318	1.25		1.6	1733	1318	1.25
	1.8	1655	1358	1.29		1.8	1655	1358	1.29
	2.0	1582	1395	1.33		2.0	1582	1395	1.33

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton)
that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton - High Static Drive

MODELS: DRG0603W, DRG0604W, DRG0607W

70,000 BTU

Down Flow

Down Flow									
Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	1177	589	0.17	T6	0.2	1177	589	0.17
	0.4	1034	666	0.19		0.4	1034	666	0.19
	0.6	931	737	0.21		0.6	931	737	0.21
	0.8	819	806	0.23		0.8	819	806	0.23
	1.0	680	873	0.25		1.0	680	873	0.25
	1.2	584	929	0.27		1.2	584	929	0.27
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2	0.2	1793	767	0.82	T7	0.2	1931	786	0.99
	0.4	1706	825	0.88		0.4	1842	840	1.06
	0.6	1634	879	0.94		0.6	1762	894	1.13
	0.8	1551	930	1.00		0.8	1680	957	1.21
	1.0	1455	980	1.05		1.0	1591	1006	1.27
	1.2	1367	1033	1.11		1.2	1500	1055	1.33
	1.4	1290	1080	1.16		1.4	1424	1101	1.39
	1.6	1213	1126	1.21		1.6	1348	1147	1.45
	1.8	1136	1172	1.26		1.8	1275	1193	1.50
	2.0	1079	1205	1.29		2.0	1208	1231	1.55
T3	0.2	2298	924	0.62	T8	0.2	2109	861	0.25
	0.4	2231	968	0.65		0.4	2035	914	0.26
	0.6	2166	1011	0.67		0.6	1962	960	0.27
	0.8	2098	1052	0.70		0.8	1895	1004	0.29
	1.0	2036	1095	0.73		1.0	1829	1047	0.30
	1.2	1971	1136	0.76		1.2	1746	1093	0.31
	1.4	1887	1180	0.79		1.4	1654	1140	0.33
	1.6	1805	1221	0.81		1.6	1580	1184	0.34
	1.8	1755	1252	0.83		1.8	1506	1225	0.35
	2.0	1660	1305	0.87		2.0	1451	1268	0.36
T4	0.2	2429	972	0.79	T9	0.2	-	-	-
	0.4	2361	1013	0.82		0.4	-	-	-
	0.6	2296	1055	0.85		0.6	-	-	-
	0.8	2236	1094	0.89		0.8	2446	1157	1.82
	1.0	2175	1133	0.92		1.0	2390	1193	1.87
	1.2	2117	1171	0.95		1.2	2331	1230	1.93
	1.4	2048	1211	0.98		1.4	2273	1266	1.99
	1.6	1958	1252	1.01		1.6	2207	1303	2.05
	1.8	1880	1293	1.05		1.8	2116	1351	2.12
	2.0	1843	1321	1.07		2.0	2037	1390	2.18
T5	0.2	-	-	-	T10	0.2	2946	1156	1.82
	0.4	-	-	-		0.4	2878	1188	1.87
	0.6	-	-	-		0.6	2798	1229	1.93
	0.8	2446	1157	1.82		0.8	2719	1270	2.00
	1.0	2390	1193	1.87		1.0	2644	1305	2.05
	1.2	2331	1230	1.93		1.2	2581	1339	2.10
	1.4	2273	1266	1.99		1.4	2513	1378	2.16
	1.6	2207	1303	2.05		1.6	2460	1417	2.23
	1.8	2116	1351	2.12		1.8	2391	1456	2.29
	2.0	2037	1390	2.18		2.0	2328	1500	2.36

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

5 Ton - High Static Drive

MODELS: DRG0603W, DRG0604W, DRG0607W

70,000 BTU

Horizontal Flow

Horizontal Flow									
Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	1201	626	0.18	T6	0.2	1201	626	0.18
	0.4	1055	709	0.20		0.4	1055	709	0.20
	0.6	950	784	0.22		0.6	950	784	0.22
	0.8	836	857	0.24		0.8	836	857	0.24
	1.0	694	929	0.27		1.0	694	929	0.27
	1.2	596	989	0.28		1.2	596	989	0.28
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2	0.2	1830	816	0.87	T7	0.2	1970	836	1.05
	0.4	1741	878	0.94		0.4	1880	894	1.13
	0.6	1667	935	1.00		0.6	1798	951	1.20
	0.8	1583	989	1.06		0.8	1714	1018	1.28
	1.0	1485	1043	1.12		1.0	1623	1070	1.35
	1.2	1395	1099	1.18		1.2	1531	1122	1.42
	1.4	1316	1149	1.23		1.4	1453	1171	1.48
	1.6	1238	1198	1.28		1.6	1375	1220	1.54
	1.8	1159	1247	1.34		1.8	1301	1269	1.60
	2.0	1101	1282	1.37		2.0	1233	1310	1.65
T3	0.2	2345	983	0.65	T8	0.2	2152	916	0.26
	0.4	2277	1030	0.69		0.4	2077	972	0.28
	0.6	2210	1075	0.72		0.6	2002	1021	0.29
	0.8	2141	1119	0.75		0.8	1934	1068	0.31
	1.0	2078	1165	0.78		1.0	1866	1114	0.32
	1.2	2011	1208	0.81		1.2	1782	1163	0.33
	1.4	1925	1255	0.84		1.4	1688	1213	0.35
	1.6	1842	1299	0.87		1.6	1612	1260	0.36
	1.8	1791	1332	0.89		1.8	1537	1303	0.37
	2.0	1694	1388	0.92		2.0	1481	1349	0.39
T4	0.2	2479	1034	0.84	T9	0.2	-	-	-
	0.4	2409	1078	0.87		0.4	-	-	-
	0.6	2343	1122	0.91		0.6	-	-	-
	0.8	2282	1164	0.94		0.8	2496	1231	1.93
	1.0	2219	1205	0.98		1.0	2439	1269	1.99
	1.2	2160	1246	1.01		1.2	2379	1308	2.05
	1.4	2090	1288	1.04		1.4	2319	1347	2.12
	1.6	1998	1332	1.08		1.6	2252	1386	2.18
	1.8	1918	1376	1.11		1.8	2159	1437	2.26
	2.0	1881	1405	1.14		2.0	2079	1479	2.32
T5	0.2	-	-	-	T10	0.2	3006	1180	1.85
	0.4	-	-	-		0.4	2937	1212	1.90
	0.6	-	-	-		0.6	2855	1254	1.97
	0.8	2496	1231	1.93		0.8	2774	1296	2.04
	1.0	2439	1269	1.99		1.0	2698	1332	2.09
	1.2	2379	1308	2.05		1.2	2633	1366	2.15
	1.4	2319	1347	2.12		1.4	2564	1406	2.21
	1.6	2252	1386	2.18		1.6	2511	1446	2.27
	1.8	2159	1437	2.26		1.8	2440	1486	2.33
	2.0	2079	1479	2.32		2.0	2375	1531	2.40

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton - High Static Drive

MODELS: DRG0603W, DRG0604W, DRG0607W

115,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1177	589	0.17	T1H	0.2	1177	589	0.17
	0.4	1034	666	0.19		0.4	1034	666	0.19
	0.6	931	737	0.21		0.6	931	737	0.21
	0.8	819	806	0.23		0.8	819	806	0.23
	1.0	680	873	0.25		1.0	680	873	0.25
	1.2	584	929	0.27		1.2	584	929	0.27
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1793	767	0.46	T2H	0.2	1728	748	0.42
	0.4	1706	825	0.49		0.4	1637	809	0.45
	0.6	1634	879	0.52		0.6	1567	863	0.48
	0.8	1551	930	0.55		0.8	1475	916	0.51
	1.0	1455	980	0.58		1.0	1379	967	0.54
	1.2	1367	1033	0.61		1.2	1293	1021	0.57
	1.4	1290	1080	0.64		1.4	1218	1068	0.60
	1.6	1213	1126	0.67		1.6	1134	1120	0.63
	1.8	1136	1172	0.70		1.8	1017	1173	0.66
	2.0	1079	1205	0.72		2.0	938	1218	0.68
T3C	0.2	2298	924	0.88	T3H	0.2	1728	748	0.42
	0.4	2231	968	0.92		0.4	1637	809	0.45
	0.6	2166	1011	0.96		0.6	1567	863	0.48
	0.8	2098	1052	1.00		0.8	1475	916	0.51
	1.0	2036	1095	1.04		1.0	1379	967	0.54
	1.2	1971	1136	1.08		1.2	1293	1021	0.57
	1.4	1887	1180	1.12		1.4	1218	1068	0.60
	1.6	1805	1221	1.16		1.6	1134	1120	0.63
	1.8	1755	1252	1.19		1.8	1017	1173	0.66
	2.0	1660	1305	1.24		2.0	938	1218	0.68
T4C	0.2	2429	972	1.04	T4H	0.2	2109	861	0.70
	0.4	2361	1013	1.09		0.4	2035	914	0.74
	0.6	2296	1055	1.13		0.6	1962	960	0.78
	0.8	2236	1094	1.17		0.8	1895	1004	0.81
	1.0	2175	1133	1.21		1.0	1829	1047	0.85
	1.2	2117	1171	1.25		1.2	1746	1093	0.88
	1.4	2048	1211	1.30		1.4	1654	1140	0.92
	1.6	1958	1252	1.34		1.6	1580	1184	0.96
	1.8	1880	1293	1.39		1.8	1506	1225	0.99
	2.0	1843	1321	1.41		2.0	1451	1268	1.03
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	2446	1157	1.46		0.8	2446	1157	1.46
	1.0	2390	1193	1.50		1.0	2390	1193	1.50
	1.2	2331	1230	1.55		1.2	2331	1230	1.55
	1.4	2273	1266	1.60		1.4	2273	1266	1.60
	1.6	2207	1303	1.64		1.6	2207	1303	1.64
	1.8	2116	1351	1.70		1.8	2116	1351	1.70
	2.0	2037	1390	1.75		2.0	2037	1390	1.75

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton)
that is not recommended for High Stage cooling or heating

5 Ton - High Static Drive

MODELS: DRG0603W, DRG0604W, DRG0607W

115,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1201	626	0.18	T1H	0.2	1201	626	0.18
	0.4	1055	709	0.20		0.4	1055	709	0.20
	0.6	950	784	0.22		0.6	950	784	0.22
	0.8	836	857	0.24		0.8	836	857	0.24
	1.0	694	929	0.27		1.0	694	929	0.27
	1.2	596	989	0.28		1.2	596	989	0.28
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	1830	816	0.49	T2H	0.2	1763	796	0.45
	0.4	1741	878	0.52		0.4	1670	860	0.48
	0.6	1667	935	0.56		0.6	1599	918	0.51
	0.8	1583	989	0.59		0.8	1505	974	0.54
	1.0	1485	1043	0.62		1.0	1407	1029	0.58
	1.2	1395	1099	0.65		1.2	1319	1086	0.61
	1.4	1316	1149	0.68		1.4	1243	1136	0.64
	1.6	1238	1198	0.71		1.6	1157	1191	0.67
	1.8	1159	1247	0.74		1.8	1038	1248	0.70
	2.0	1101	1282	0.76		2.0	957	1296	0.72
T3C	0.2	2345	983	0.94	T3H	0.2	1763	796	0.45
	0.4	2277	1030	0.98		0.4	1670	860	0.48
	0.6	2210	1075	1.02		0.6	1599	918	0.51
	0.8	2141	1119	1.07		0.8	1505	974	0.54
	1.0	2078	1165	1.11		1.0	1407	1029	0.58
	1.2	2011	1208	1.15		1.2	1319	1086	0.61
	1.4	1925	1255	1.19		1.4	1243	1136	0.64
	1.6	1842	1299	1.24		1.6	1157	1191	0.67
	1.8	1791	1332	1.27		1.8	1038	1248	0.70
	2.0	1694	1388	1.32		2.0	957	1296	0.72
T4C	0.2	2479	1034	1.11	T4H	0.2	2152	916	0.74
	0.4	2409	1078	1.15		0.4	2077	972	0.79
	0.6	2343	1122	1.20		0.6	2002	1021	0.83
	0.8	2282	1164	1.25		0.8	1934	1068	0.86
	1.0	2219	1205	1.29		1.0	1866	1114	0.90
	1.2	2160	1246	1.33		1.2	1782	1163	0.94
	1.4	2090	1288	1.38		1.4	1688	1213	0.98
	1.6	1998	1332	1.43		1.6	1612	1260	1.02
	1.8	1918	1376	1.47		1.8	1537	1303	1.05
	2.0	1881	1405	1.50		2.0	1481	1349	1.09
T5C	0.2	-	-	-	T5H	0.2	-	-	-
	0.4	-	-	-		0.4	-	-	-
	0.6	-	-	-		0.6	-	-	-
	0.8	2496	1231	1.55		0.8	2496	1231	1.55
	1.0	2439	1269	1.60		1.0	2439	1269	1.60
	1.2	2379	1308	1.65		1.2	2379	1308	1.65
	1.4	2319	1347	1.70		1.4	2319	1347	1.70
	1.6	2252	1386	1.75		1.6	2252	1386	1.75
	1.8	2159	1437	1.81		1.8	2159	1437	1.81
	2.0	2079	1479	1.87		2.0	2079	1479	1.87

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton)
that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

5 Ton - High Static Drive

MODELS: DRG0603W, DRG0604W, DRG0607W

140,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1177	589	0.17	T1H	0.2	2109	861	0.25
	0.4	1034	666	0.19		0.4	2035	914	0.26
	0.6	931	737	0.21		0.6	1962	960	0.27
	0.8	819	806	0.23		0.8	1895	1004	0.29
	1.0	680	873	0.25		1.0	1829	1047	0.30
	1.2	584	929	0.27		1.2	1746	1093	0.31
	1.4	-	-	-		1.4	1654	1140	0.33
	1.6	-	-	-		1.6	1580	1184	0.34
	1.8	-	-	-		1.8	1506	1225	0.35
	2.0	-	-	-		2.0	1451	1268	0.36
T2C	0.2	1793	767	0.82	T2H	0.2	2429	972	0.79
	0.4	1706	825	0.88		0.4	2361	1013	0.82
	0.6	1634	879	0.94		0.6	2296	1055	0.85
	0.8	1551	930	1.00		0.8	2236	1094	0.89
	1.0	1455	980	1.05		1.0	2175	1133	0.92
	1.2	1367	1033	1.11		1.2	2117	1171	0.95
	1.4	1290	1080	1.16		1.4	2048	1211	0.98
	1.6	1213	1126	1.21		1.6	1958	1252	1.01
	1.8	1136	1172	1.26		1.8	1880	1293	1.05
	2.0	1079	1205	1.29		2.0	1843	1321	1.07
T3C	0.2	2298	924	0.62	T3H	0.2	2858	1135	1.63
	0.4	2231	968	0.65		0.4	2795	1171	1.69
	0.6	2166	1011	0.67		0.6	2717	1204	1.73
	0.8	2098	1052	0.70		0.8	2635	1245	1.79
	1.0	2036	1095	0.73		1.0	2569	1279	1.84
	1.2	1971	1136	0.76		1.2	2502	1319	1.90
	1.4	1887	1180	0.79		1.4	2432	1356	1.95
	1.6	1805	1221	0.81		1.6	2371	1397	2.01
	1.8	1755	1252	0.83		1.8	2293	1446	2.08
	2.0	1660	1305	0.87		2.0	2197	1507	2.17
T4C	0.2	2429	972	0.79	T4H	0.2	-	-	-
	0.4	2361	1013	0.82		0.4	-	-	-
	0.6	2296	1055	0.85		0.6	-	-	-
	0.8	2236	1094	0.89		0.8	2446	1157	1.82
	1.0	2175	1133	0.92		1.0	2390	1193	1.87
	1.2	2117	1171	0.95		1.2	2331	1230	1.93
	1.4	2048	1211	0.98		1.4	2273	1266	1.99
	1.6	1958	1252	1.01		1.6	2207	1303	2.05
	1.8	1880	1293	1.05		1.8	2116	1351	2.12
	2.0	1843	1321	1.07		2.0	2037	1390	2.18
T5C	0.2	-	-	-	T5H	0.2	2946	1156	1.82
	0.4	-	-	-		0.4	2878	1188	1.87
	0.6	-	-	-		0.6	2798	1229	1.93
	0.8	2446	1157	1.82		0.8	2719	1270	2.00
	1.0	2390	1193	1.87		1.0	2644	1305	2.05
	1.2	2331	1230	1.93		1.2	2581	1339	2.10
	1.4	2273	1266	1.99		1.4	2513	1378	2.16
	1.6	2207	1303	2.05		1.6	2460	1417	2.23
	1.8	2116	1351	2.12		1.8	2391	1456	2.29
	2.0	2037	1390	2.18		2.0	2328	1500	2.36

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton)
that is not recommended for High Stage cooling or heating

5 Ton - High Static Drive

MODELS: DRG0603W, DRG0604W, DRG0607W

140,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1201	626	0.18	T1H	0.2	2152	916	0.26
	0.4	1055	709	0.20		0.4	2077	972	0.28
	0.6	950	784	0.22		0.6	2002	1021	0.29
	0.8	836	857	0.24		0.8	1934	1068	0.31
	1.0	694	929	0.27		1.0	1866	1114	0.32
	1.2	596	989	0.28		1.2	1782	1163	0.33
	1.4	-	-	-		1.4	1688	1213	0.35
	1.6	-	-	-		1.6	1612	1260	0.36
	1.8	-	-	-		1.8	1537	1303	0.37
	2.0	-	-	-		2.0	1481	1349	0.39
T2C	0.2	1830	816	0.87	T2H	0.2	2479	1034	0.84
	0.4	1741	878	0.94		0.4	2409	1078	0.87
	0.6	1667	935	1.00		0.6	2343	1122	0.91
	0.8	1583	989	1.06		0.8	2282	1164	0.94
	1.0	1485	1043	1.12		1.0	2219	1205	0.98
	1.2	1395	1099	1.18		1.2	2160	1246	1.01
	1.4	1316	1149	1.23		1.4	2090	1288	1.04
	1.6	1238	1198	1.28		1.6	1998	1332	1.08
	1.8	1159	1247	1.34		1.8	1918	1376	1.11
	2.0	1101	1282	1.37		2.0	1881	1405	1.14
T3C	0.2	2345	983	0.65	T3H	0.2	2916	1158	1.67
	0.4	2277	1030	0.69		0.4	2852	1195	1.72
	0.6	2210	1075	0.72		0.6	2772	1229	1.77
	0.8	2141	1119	0.75		0.8	2689	1270	1.83
	1.0	2078	1165	0.78		1.0	2622	1305	1.88
	1.2	2011	1208	0.81		1.2	2553	1346	1.94
	1.4	1925	1255	0.84		1.4	2482	1384	1.99
	1.6	1842	1299	0.87		1.6	2420	1426	2.05
	1.8	1791	1332	0.89		1.8	2340	1475	2.12
	2.0	1694	1388	0.92		2.0	2242	1538	2.21
T4C	0.2	2479	1034	0.84	T4H	0.2	-	-	-
	0.4	2409	1078	0.87		0.4	-	-	-
	0.6	2343	1122	0.91		0.6	-	-	-
	0.8	2282	1164	0.94		0.8	2496	1231	1.93
	1.0	2219	1205	0.98		1.0	2439	1269	1.99
	1.2	2160	1246	1.01		1.2	2379	1308	2.05
	1.4	2090	1288	1.04		1.4	2319	1347	2.12
	1.6	1998	1332	1.08		1.6	2252	1386	2.18
	1.8	1918	1376	1.11		1.8	2159	1437	2.26
	2.0	1881	1405	1.14		2.0	2079	1479	2.32
T5C	0.2	-	-	-	T5H	0.2	3006	1180	1.85
	0.4	-	-	-		0.4	2937	1212	1.90
	0.6	-	-	-		0.6	2855	1254	1.97
	0.8	2496	1231	1.93		0.8	2774	1296	2.04
	1.0	2439	1269	1.99		1.0	2698	1332	2.09
	1.2	2379	1308	2.05		1.2	2633	1366	2.15
	1.4	2319	1347	2.12		1.4	2564	1406	2.21
	1.6	2252	1386	2.18		1.6	2511	1446	2.27
	1.8	2159	1437	2.26		1.8	2440	1486	2.33
	2.0	2079	1479	2.32		2.0	2375	1531	2.40

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton)
that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton - High Static Drive

MODELS: DRG0723W, DRG0724W, DRG0727W

70,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1 C	0.2	1397	640	0.23	T1 H	0.2	1397	640	0.23
	0.4	1291	706	0.25		0.4	1291	706	0.25
	0.6	1134	794	0.28		0.6	1134	794	0.28
	0.8	1035	849	0.30		0.8	1035	849	0.30
	1.0	925	910	0.32		1.0	925	910	0.32
	1.2	-	-	-		1.2	-	-	-
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2 C	0.2	2019	823	0.58	T2 H	0.2	1696	728	0.37
	0.4	1934	875	0.61		0.4	1607	787	0.40
	0.6	1863	923	0.65		0.6	1527	842	0.43
	0.8	1796	967	0.68		0.8	1381	921	0.47
	1.0	1718	1024	0.72		1.0	1293	968	0.50
	1.2	1578	1090	0.77		1.2	1211	1018	0.52
	1.4	1506	1135	0.80		1.4	1125	1068	0.55
	1.6	1431	1176	0.83		1.6	-	-	-
	1.8	1360	1220	0.86		1.8	-	-	-
	2.0	1281	1261	0.89		2.0	-	-	-
T3 C	0.2	2769	1057	1.40	T3 H	0.2	2769	1057	1.40
	0.4	2710	1095	1.45		0.4	2710	1095	1.45
	0.6	2647	1136	1.50		0.6	2647	1136	1.50
	0.8	2582	1172	1.55		0.8	2582	1172	1.55
	1.0	2528	1207	1.59		1.0	2528	1207	1.59
	1.2	2479	1240	1.64		1.2	2479	1240	1.64
	1.4	2422	1277	1.69		1.4	2422	1277	1.69
	1.6	2367	1314	1.74		1.6	2367	1314	1.74
	1.8	2305	1355	1.79		1.8	2305	1355	1.79
	2.0	2224	1402	1.85		2.0	2224	1402	1.85
T4 C	0.2	2845	1079	1.52	T4 H	0.2	2845	1079	1.52
	0.4	2785	1114	1.56		0.4	2785	1114	1.56
	0.6	2723	1157	1.62		0.6	2723	1157	1.62
	0.8	2661	1191	1.67		0.8	2661	1191	1.67
	1.0	2612	1225	1.72		1.0	2612	1225	1.72
	1.2	2560	1261	1.77		1.2	2560	1261	1.77
	1.4	2509	1294	1.82		1.4	2509	1294	1.82
	1.6	2454	1331	1.87		1.6	2454	1331	1.87
	1.8	2393	1369	1.92		1.8	2393	1369	1.92
	2.0	2331	1412	1.98		2.0	2331	1412	1.98
T5 C	0.2	2939	1109	1.67	T5 H	0.2	2939	1109	1.67
	0.4	2881	1143	1.72		0.4	2881	1143	1.72
	0.6	2820	1183	1.78		0.6	2820	1183	1.78
	0.8	2764	1220	1.84		0.8	2764	1220	1.84
	1.0	2707	1254	1.89		1.0	2707	1254	1.89
	1.2	2661	1291	1.94		1.2	2661	1291	1.94
	1.4	2616	1322	1.99		1.4	2616	1322	1.99
	1.6	2573	1357	2.04		1.6	2573	1357	2.04
	1.8	2528	1398	2.10		1.8	2528	1398	2.10
	2.0	2483	1435	2.16		2.0	2483	1435	2.16

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

6 Ton - High Static Drive

MODELS: DRG0723W, DRG0724W, DRG0727W

70,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	1425	681	0.24	T6	0.2	1425	681	0.24
	0.4	1317	751	0.27		0.4	1317	751	0.27
	0.6	1157	845	0.30		0.6	1157	845	0.30
	0.8	1056	903	0.32		0.8	1056	903	0.32
	1.0	944	968	0.35		1.0	944	968	0.35
	1.2	-	-	-		1.2	-	-	-
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2	0.2	2060	875	0.61	T7	0.2	1731	774	0.40
	0.4	1973	931	0.65		0.4	1640	837	0.43
	0.6	1901	982	0.69		0.6	1558	896	0.46
	0.8	1833	1029	0.72		0.8	1409	980	0.50
	1.0	1753	1089	0.76		1.0	1319	1030	0.53
	1.2	1610	1160	0.81		1.2	1236	1083	0.55
	1.4	1537	1207	0.85		1.4	1148	1136	0.58
	1.6	1460	1251	0.88		1.6	-	-	-
	1.8	1388	1298	0.91		1.8	-	-	-
	2.0	1307	1342	0.94		2.0	-	-	-
T3	0.2	2826	1124	1.48	T8	0.2	2826	1124	1.48
	0.4	2765	1165	1.54		0.4	2765	1165	1.54
	0.6	2701	1209	1.60		0.6	2701	1209	1.60
	0.8	2635	1247	1.65		0.8	2635	1247	1.65
	1.0	2580	1284	1.70		1.0	2580	1284	1.70
	1.2	2530	1319	1.74		1.2	2530	1319	1.74
	1.4	2471	1358	1.79		1.4	2471	1358	1.79
	1.6	2415	1398	1.85		1.6	2415	1398	1.85
	1.8	2352	1442	1.90		1.8	2352	1442	1.90
	2.0	2269	1491	1.97		2.0	2269	1491	1.97
T4	0.2	2903	1148	1.61	T9	0.2	2903	1148	1.61
	0.4	2842	1185	1.66		0.4	2842	1185	1.66
	0.6	2779	1231	1.73		0.6	2779	1231	1.73
	0.8	2715	1267	1.78		0.8	2715	1267	1.78
	1.0	2665	1303	1.83		1.0	2665	1303	1.83
	1.2	2612	1341	1.88		1.2	2612	1341	1.88
	1.4	2560	1377	1.93		1.4	2560	1377	1.93
	1.6	2504	1416	1.99		1.6	2504	1416	1.99
	1.8	2442	1456	2.04		1.8	2442	1456	2.04
	2.0	-	-	-		2.0	-	-	-
T5	0.2	2999	1180	1.78	T10	0.2	2999	1180	1.78
	0.4	2940	1216	1.83		0.4	2940	1216	1.83
	0.6	2878	1258	1.89		0.6	2878	1258	1.89
	0.8	2820	1298	1.95		0.8	2820	1298	1.95
	1.0	2762	1334	2.01		1.0	2762	1334	2.01
	1.2	2715	1373	2.07		1.2	2715	1373	2.07
	1.4	2669	1406	2.12		1.4	2669	1406	2.12
	1.6	2626	1444	2.17		1.6	2626	1444	2.17
	1.8	2580	1487	2.24		1.8	2580	1487	2.24
	2.0	-	-	-		2.0	-	-	-

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton - HIGH STATIC DRIVE

MODELS: DRG0723W, DRG0724W, DRG0727W

125,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1 C	0.2	1397	640	0.23	T1 H	0.2	1397	640	0.23
	0.4	1291	706	0.25		0.4	1291	706	0.25
	0.6	1134	794	0.28		0.6	1134	794	0.28
	0.8	1035	849	0.30		0.8	1035	849	0.30
	1.0	925	910	0.32		1.0	925	910	0.32
	1.2	-	-	-		1.2	-	-	-
	1.4	-	-	-		1.4	-	-	-
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2 C	0.2	2019	823	0.58	T2 H	0.2	1858	775	0.47
	0.4	1934	875	0.61		0.4	1770	831	0.50
	0.6	1863	923	0.65		0.6	1695	883	0.54
	0.8	1796	967	0.68		0.8	1589	944	0.57
	1.0	1718	1024	0.72		1.0	1505	996	0.60
	1.2	1578	1090	0.77		1.2	1395	1054	0.64
	1.4	1506	1135	0.80		1.4	1316	1101	0.67
	1.6	1431	1176	0.83		1.6	1215	1155	0.70
	1.8	1360	1220	0.86		1.8	1130	1206	0.73
	2.0	1281	1261	0.89		2.0	1041	1255	0.76
T3 C	0.2	2769	1057	1.40	T3 H	0.2	1696	728	0.37
	0.4	2710	1095	1.45		0.4	1607	787	0.40
	0.6	2647	1136	1.50		0.6	1527	842	0.43
	0.8	2582	1172	1.55		0.8	1381	921	0.47
	1.0	2528	1207	1.59		1.0	1293	968	0.50
	1.2	2479	1240	1.64		1.2	1211	1018	0.52
	1.4	2422	1277	1.69		1.4	1125	1068	0.55
	1.6	2367	1314	1.74		1.6	-	-	-
	1.8	2305	1355	1.79		1.8	-	-	-
	2.0	2224	1402	1.85		2.0	-	-	-
T4 C	0.2	2845	1079	1.52	T4 H	0.2	2019	823	0.58
	0.4	2785	1114	1.56		0.4	1934	875	0.61
	0.6	2723	1157	1.62		0.6	1863	923	0.65
	0.8	2661	1191	1.67		0.8	1796	967	0.68
	1.0	2612	1225	1.72		1.0	1718	1024	0.72
	1.2	2560	1261	1.77		1.2	1578	1090	0.77
	1.4	2509	1294	1.82		1.4	1506	1135	0.80
	1.6	2454	1331	1.87		1.6	1431	1176	0.83
	1.8	2393	1369	1.92		1.8	1360	1220	0.86
	2.0	2331	1412	1.98		2.0	1281	1261	0.89
T5 C	0.2	2939	1109	1.67	T5 H	0.2	2845	1079	1.52
	0.4	2881	1143	1.72		0.4	2785	1114	1.56
	0.6	2820	1183	1.78		0.6	2723	1157	1.62
	0.8	2764	1220	1.84		0.8	2661	1191	1.67
	1.0	2707	1254	1.89		1.0	2612	1225	1.72
	1.2	2661	1291	1.94		1.2	2560	1261	1.77
	1.4	2616	1322	1.99		1.4	2509	1294	1.82
	1.6	2573	1357	2.04		1.6	2454	1331	1.87
	1.8	2528	1398	2.10		1.8	2393	1369	1.92
	2.0	2483	1435	2.16		2.0	2331	1412	1.98

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heatingModels:

6 Ton - HIGH STATIC DRIVE

MODELS: DRG0723W, DRG0724W, DRG0727W

125,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1	0.2	1425	681	0.24	T6	0.2	1731	774	0.40
	0.4	1317	751	0.27		0.4	1640	837	0.43
	0.6	1157	845	0.30		0.6	1558	896	0.46
	0.8	1056	903	0.32		0.8	1409	980	0.50
	1.0	944	968	0.35		1.0	1319	1030	0.53
	1.2	-	-	-		1.2	1236	1083	0.55
	1.4	-	-	-		1.4	1148	1136	0.58
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2	0.2	2060	875	0.61	T7	0.2	2060	875	0.61
	0.4	1973	931	0.65		0.4	1973	931	0.65
	0.6	1901	982	0.69		0.6	1901	982	0.69
	0.8	1833	1029	0.72		0.8	1833	1029	0.72
	1.0	1753	1089	0.76		1.0	1753	1089	0.76
	1.2	1610	1160	0.81		1.2	1610	1160	0.81
	1.4	1537	1207	0.85		1.4	1537	1207	0.85
	1.6	1460	1251	0.88		1.6	1460	1251	0.88
	1.8	1388	1298	0.91		1.8	1388	1298	0.91
	2.0	1307	1342	0.94		2.0	1307	1342	0.94
T3	0.2	2826	1124	1.48	T8	0.2	2517	1019	1.05
	0.4	2765	1165	1.54		0.4	2448	1067	1.10
	0.6	2701	1209	1.60		0.6	2374	1113	1.15
	0.8	2635	1247	1.65		0.8	2316	1153	1.19
	1.0	2580	1284	1.70		1.0	2260	1194	1.24
	1.2	2530	1319	1.74		1.2	2194	1235	1.28
	1.4	2471	1358	1.79		1.4	2126	1280	1.33
	1.6	2415	1398	1.85		1.6	2026	1340	1.39
	1.8	2352	1442	1.90		1.8	1894	1392	1.44
	2.0	2269	1491	1.97		2.0	1835	1431	1.48
T4	0.2	2903	1148	1.61	T9	0.2	2903	1148	1.61
	0.4	2842	1185	1.66		0.4	2842	1185	1.66
	0.6	2779	1231	1.73		0.6	2779	1231	1.73
	0.8	2715	1267	1.78		0.8	2715	1267	1.78
	1.0	2665	1303	1.83		1.0	2665	1303	1.83
	1.2	2612	1341	1.88		1.2	2612	1341	1.88
	1.4	2560	1377	1.93		1.4	2560	1377	1.93
	1.6	2504	1416	1.99		1.6	2504	1416	1.99
	1.8	2442	1456	2.04		1.8	2442	1456	2.04
	2.0	-	-	-		2.0	-	-	-
T5	0.2	2999	1180	1.78	T10	0.2	2999	1180	1.78
	0.4	2940	1216	1.83		0.4	2940	1216	1.83
	0.6	2878	1258	1.89		0.6	2878	1258	1.89
	0.8	2820	1298	1.95		0.8	2820	1298	1.95
	1.0	2762	1334	2.01		1.0	2762	1334	2.01
	1.2	2715	1373	2.07		1.2	2715	1373	2.07
	1.4	2669	1406	2.12		1.4	2669	1406	2.12
	1.6	2626	1444	2.17		1.6	2626	1444	2.17
	1.8	2580	1487	2.24		1.8	2580	1487	2.24
	2.0	-	-	-		2.0	-	-	-

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

6 Ton - High Static Drive

MODELS: DRG0723W, DRG0724W, DRG0727W

150,000 BTU

DOWN FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1 C	0.2	1397	640	0.23	T1 H	0.2	1696	728	0.37
	0.4	1291	706	0.25		0.4	1607	787	0.40
	0.6	1134	794	0.28		0.6	1527	842	0.43
	0.8	1035	849	0.30		0.8	1381	921	0.47
	1.0	925	910	0.32		1.0	1293	968	0.50
	1.2	-	-	-		1.2	1211	1018	0.52
	1.4	-	-	-		1.4	1125	1068	0.55
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2 C	0.2	2019	823	0.58	T2 H	0.2	2467	958	0.99
	0.4	1934	875	0.61		0.4	2399	1003	1.04
	0.6	1863	923	0.65		0.6	2327	1046	1.08
	0.8	1796	967	0.68		0.8	2270	1084	1.12
	1.0	1718	1024	0.72		1.0	2215	1122	1.16
	1.2	1578	1090	0.77		1.2	2150	1161	1.20
	1.4	1506	1135	0.80		1.4	2083	1203	1.25
	1.6	1431	1176	0.83		1.6	1985	1260	1.30
	1.8	1360	1220	0.86		1.8	1856	1308	1.35
	2.0	1281	1261	0.89		2.0	1798	1345	1.39
T3 C	0.2	2769	1057	1.40	T3 H	0.2	2467	958	0.99
	0.4	2710	1095	1.45		0.4	2399	1003	1.04
	0.6	2647	1136	1.50		0.6	2327	1046	1.08
	0.8	2582	1172	1.55		0.8	2270	1084	1.12
	1.0	2528	1207	1.59		1.0	2215	1122	1.16
	1.2	2479	1240	1.64		1.2	2150	1161	1.20
	1.4	2422	1277	1.69		1.4	2083	1203	1.25
	1.6	2367	1314	1.74		1.6	1985	1260	1.30
	1.8	2305	1355	1.79		1.8	1856	1308	1.35
	2.0	2224	1402	1.85		2.0	1798	1345	1.39
T4 C	0.2	2845	1079	1.52	T4 H	0.2	2845	1079	1.52
	0.4	2785	1114	1.56		0.4	2785	1114	1.56
	0.6	2723	1157	1.62		0.6	2723	1157	1.62
	0.8	2661	1191	1.67		0.8	2661	1191	1.67
	1.0	2612	1225	1.72		1.0	2612	1225	1.72
	1.2	2560	1261	1.77		1.2	2560	1261	1.77
	1.4	2509	1294	1.82		1.4	2509	1294	1.82
	1.6	2454	1331	1.87		1.6	2454	1331	1.87
	1.8	2393	1369	1.92		1.8	2393	1369	1.92
	2.0	2331	1412	1.98		2.0	2331	1412	1.98
T5 C	0.2	2939	1109	1.67	T5 H	0.2	2939	1109	1.67
	0.4	2881	1143	1.72		0.4	2881	1143	1.72
	0.6	2820	1183	1.78		0.6	2820	1183	1.78
	0.8	2764	1220	1.84		0.8	2764	1220	1.84
	1.0	2707	1254	1.89		1.0	2707	1254	1.89
	1.2	2661	1291	1.94		1.2	2661	1291	1.94
	1.4	2616	1322	1.99		1.4	2616	1322	1.99
	1.6	2573	1357	2.04		1.6	2573	1357	2.04
	1.8	2528	1398	2.10		1.8	2528	1398	2.10
	2.0	2483	1435	2.16		2.0	2483	1435	2.16

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

6 Ton - High Static Drive

MODELS: DRG0723W, DRG0724W, DRG0727W

150,000 BTU

HORIZONTAL FLOW

Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP	Speed Tap	External Static Pressure (ESP), in w.c.	SCFM	RPM	BHP
T1C	0.2	1425	681	0.24	T1H	0.2	1731	774	0.40
	0.4	1317	751	0.27		0.4	1640	837	0.43
	0.6	1157	845	0.30		0.6	1558	896	0.46
	0.8	1056	903	0.32		0.8	1409	980	0.50
	1.0	944	968	0.35		1.0	1319	1030	0.53
	1.2	-	-	-		1.2	1236	1083	0.55
	1.4	-	-	-		1.4	1148	1136	0.58
	1.6	-	-	-		1.6	-	-	-
	1.8	-	-	-		1.8	-	-	-
	2.0	-	-	-		2.0	-	-	-
T2C	0.2	2060	875	0.61	T2H	0.2	2517	1019	1.05
	0.4	1973	931	0.65		0.4	2448	1067	1.10
	0.6	1901	982	0.69		0.6	2374	1113	1.15
	0.8	1833	1029	0.72		0.8	2316	1153	1.19
	1.0	1753	1089	0.76		1.0	2260	1194	1.24
	1.2	1610	1160	0.81		1.2	2194	1235	1.28
	1.4	1537	1207	0.85		1.4	2126	1280	1.33
	1.6	1460	1251	0.88		1.6	2026	1340	1.39
	1.8	1388	1298	0.91		1.8	1894	1392	1.44
	2.0	1307	1342	0.94		2.0	1835	1431	1.48
T3C	0.2	2826	1124	1.48	T3H	0.2	2517	1019	1.05
	0.4	2765	1165	1.54		0.4	2448	1067	1.10
	0.6	2701	1209	1.60		0.6	2374	1113	1.15
	0.8	2635	1247	1.65		0.8	2316	1153	1.19
	1.0	2580	1284	1.70		1.0	2260	1194	1.24
	1.2	2530	1319	1.74		1.2	2194	1235	1.28
	1.4	2471	1358	1.79		1.4	2126	1280	1.33
	1.6	2415	1398	1.85		1.6	2026	1340	1.39
	1.8	2352	1442	1.90		1.8	1894	1392	1.44
	2.0	2269	1491	1.97		2.0	1835	1431	1.48
T4C	0.2	2903	1148	1.61	T4H	0.2	2903	1148	1.61
	0.4	2842	1185	1.66		0.4	2842	1185	1.66
	0.6	2779	1231	1.73		0.6	2779	1231	1.73
	0.8	2715	1267	1.78		0.8	2715	1267	1.78
	1.0	2665	1303	1.83		1.0	2665	1303	1.83
	1.2	2612	1341	1.88		1.2	2612	1341	1.88
	1.4	2560	1377	1.93		1.4	2560	1377	1.93
	1.6	2504	1416	1.99		1.6	2504	1416	1.99
	1.8	2442	1456	2.04		1.8	2442	1456	2.04
	2.0	-	-	-		2.0	-	-	-
T5C	0.2	2999	1180	1.78	T5H	0.2	2999	1180	1.78
	0.4	2940	1216	1.83		0.4	2940	1216	1.83
	0.6	2878	1258	1.89		0.6	2878	1258	1.89
	0.8	2820	1298	1.95		0.8	2820	1298	1.95
	1.0	2762	1334	2.01		1.0	2762	1334	2.01
	1.2	2715	1373	2.07		1.2	2715	1373	2.07
	1.4	2669	1406	2.12		1.4	2669	1406	2.12
	1.6	2626	1444	2.17		1.6	2626	1444	2.17
	1.8	2580	1487	2.24		1.8	2580	1487	2.24
	2.0	-	-	-		2.0	-	-	-

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating

APPENDIX A BLOWER PERFORMANCE DATA

THE FOLLOWING TABLES ARE PROVIDED FOR REFERENCE ONLY TO SHOW DDC CONTROL SETTINGS RELATIONSHIP TO UNIT CFM. BLOWER SPEED SETTINGS MUST BE SET TO MEET THE MINIMUM REQUIRED CFM OF THEIR STAGES.

GAS DDC SMALL

3 TON

MODELS : DRG0363D,DRG0364D & DRG0367D WITH DDC CONTROLS

STANDARD STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600							721	22	0.16	812	26	0.22	886	28	0.27
800	526	22	0.11	656	24	0.16	761	28	0.23	852	31	0.31	924	32	0.37
1000	590	26	0.16	705	30	0.22	802	33	0.32	891	37	0.43	962	35	0.51
1200	653	31	0.24	754	36	0.32	842	39	0.45	930	42	0.59	1000	39	0.70
1400	717	35	0.35	804	42	0.46	883	45	0.64	970	48	0.81	1038	42	0.96
1500	749	38	0.42	828	45	0.55	903	48	0.76	989	51	0.95	1057	44	1.13

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600							763	22	0.17	861	25	0.23	939	28	0.29
800	553	21	0.11	685	23	0.17	806	27	0.24	902	31	0.32	979	34	0.38
1000	619	26	0.17	749	29	0.23	848	33	0.33	943	36	0.43	1018	39	0.50
1200	686	30	0.25	812	35	0.33	890	39	0.46	984	42	0.58	1057	44	0.66
1400	753	35	0.37	875	41	0.46	933	44	0.63	1025	47	0.78	1097	50	0.88
1500	786	37	0.46	907	44	0.55	954	47	0.74	1045	50	0.90	1117	52	1.01

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

3 TON

MODELS : DRG0363W,DRG0364W & DRG0367W WITH DDC CONTROL

HIGH STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600							702	24	0.13	794	28	0.17	876	32	0.21
800	498	22	0.10	628	26	0.12	740	32	0.18	829	36	0.23	910	41	0.28
1000	556	31	0.12	673	34	0.17	778	40	0.25	864	44	0.31	944	50	0.37
1200	613	40	0.15	718	42	0.25	816	49	0.35	899	53	0.42	978	60	0.50
1400	670	49	0.19	764	50	0.34	853	57	0.49	934	61	0.57	1012	69	0.68
1500	699	54	0.21	786	54	0.41	872	61	0.58	951	65	0.66	1029	74	0.79
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600	944	30	0.24	1015	36	0.30	1076	42	0.37	1139	40	0.46	1193	53	0.52
800	980	43	0.33	1049	48	0.43	1109	55	0.51	1169	56	0.63	1225	66	0.71
1000	1016	56	0.47	1082	61	0.60	1141	67	0.70	1200	71	0.87	1258	79	0.96
1200	1052	69	0.66	1116	74	0.84	1174	79	0.97	1231	87	1.20			
1400	1088	82	0.92	1150	87	1.19									
1500	1106	89	1.10												

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600				629	23	0.10	752	24	0.13	845	27	0.18	929	32	0.23
800	527	24	0.09	670	28	0.13	786	31	0.17	878	34	0.24	963	40	0.30
1000	585	29	0.12	711	33	0.17	821	38	0.23	912	42	0.31	997	47	0.40
1200	644	35	0.17	752	38	0.22	856	45	0.30	946	49	0.42	1031	55	0.53
1400	702	40	0.23	792	43	0.29	890	52	0.40	979	56	0.55	1065	62	0.70
1500	732	43	0.27	813	45	0.33	908	55	0.46	996	60	0.63	1082	66	0.80
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
600	1006	31	0.25	1076	35	0.31	1141	41	0.39	1208	39	0.45	1264	46	0.55
800	1038	41	0.34	1109	46	0.42	1173	52	0.53	1238	53	0.60	1296	60	0.73
1000	1071	51	0.45	1141	58	0.57	1205	64	0.72	1268	67	0.79	1328	74	0.96
1200	1103	62	0.61	1174	70	0.76	1237	75	0.97	1297	81	1.05	1359	87	1.27
1400	1136	72	0.83	1206	81	1.03	1269	86	1.31						
1500	1152	77	0.96	1222	87	1.20									

Shaded area indicates air flow below 900 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

APPENDIX A BLOWER PERFORMANCE DATA

4 TON

MODELS : DRG0483D,DRG0484D & DRG0487D WITH DDC CONTROLS

STANDARD STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	524	24	0.10	658	31	0.16	763	35	0.21	853	40	0.27	931	44	0.33
1000	588	32	0.15	708	38	0.21	807	42	0.28	892	47	0.35	968	50	0.41
1200	652	41	0.20	757	45	0.29	850	50	0.37	930	53	0.46	1005	57	0.53
1400	716	49	0.29	807	53	0.39	893	57	0.48	969	60	0.60	1043	63	0.67
1600	781	57	0.40	857	60	0.52	936	64	0.64	1008	67	0.77	1080	70	0.85
1800	845	65	0.57	906	68	0.71	979	71	0.85	1047	74	1.00	1117	76	1.08
2000	909	73	0.79	956	75	0.96	1023	78	1.12						

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	551	24	0.11	695	30	0.16	807	35	0.22	903	39	0.27	986	43	0.34
1000	618	32	0.16	747	37	0.21	853	42	0.29	943	46	0.35	1025	50	0.43
1200	685	40	0.22	798	45	0.27	898	49	0.39	983	53	0.44	1063	56	0.55
1400	752	48	0.31	850	52	0.36	943	56	0.51	1024	59	0.56	1102	62	0.70
1600	819	56	0.44	902	59	0.48	988	63	0.68	1064	66	0.71	1141	69	0.89
1800	885	64	0.61	954	67	0.63	1033	70	0.90	1105	72	0.90	1180	75	1.14
2000	952	72	0.86	1005	74	0.83	1078	76	1.19						

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

4 TON

MODELS : DRG0483W,DRG0484W & DRG0487W WITH DDC CONTROLS

HIGH STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800				608	23	0.16	735	29	0.22	820	34	0.28	892	38	0.33
1000	565	28	0.15	658	32	0.21	775	38	0.27	856	43	0.35	926	46	0.40
1200	617	37	0.20	709	41	0.28	815	47	0.34	891	51	0.44	959	55	0.49
1400	669	46	0.26	760	50	0.36	856	55	0.42	926	59	0.55	993	64	0.60
1600	721	54	0.35	811	59	0.47	896	64	0.53	961	68	0.68	1026	72	0.73
1800	772	63	0.46	862	68	0.60	937	73	0.66	997	76	0.85	1059	81	0.90
2000	824	72	0.61	913	77	0.78	977	82	0.82	1032	85	1.06	1093	89	1.09
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	975	43	0.38	1036	47	0.46	1099	51	0.50	1155	54	0.58	1213	57	0.65
1000	1005	51	0.45	1067	55	0.56	1128	59	0.60	1183	62	0.70	1238	65	0.76
1200	1035	60	0.54	1099	64	0.69	1157	67	0.72	1210	70	0.83	1263	74	0.89
1400	1065	68	0.65	1130	72	0.84	1186	76	0.86	1238	79	1.00	1287	82	1.05
1600	1095	76	0.78	1162	81	1.03	1215	84	1.03	1266	87	1.19			
1800	1125	85	0.93												
2000															

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800				642	23	0.17	783	29	0.23	870	34	0.28	950	38	0.35
1000	595	27	0.16	695	32	0.22	823	38	0.29	907	42	0.34	983	46	0.42
1200	649	36	0.21	748	41	0.29	863	46	0.36	943	50	0.42	1016	54	0.51
1400	704	44	0.28	801	50	0.38	904	54	0.45	980	58	0.51	1049	62	0.63
1600	758	53	0.37	854	59	0.49	944	62	0.56	1017	67	0.62	1082	70	0.77
1800	812	62	0.49	907	69	0.63	984	70	0.70	1053	75	0.76	1115	78	0.94
2000	866	70	0.65	960	78	0.82	1024	79	0.87	1090	83	0.93	1148	86	1.15
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
800	1026	40	0.40	1098	46	0.46	1167	50	0.53	1226	53	0.61	1288	56	0.69
1000	1059	49	0.49	1130	54	0.55	1197	58	0.63	1255	61	0.73	1314	64	0.81
1200	1092	57	0.60	1163	62	0.65	1227	66	0.76	1284	70	0.88	1340	73	0.95
1400	1125	66	0.73	1195	71	0.78	1258	74	0.91	1313	78	1.05	1366	81	1.12
1600	1158	75	0.89	1228	79	0.94	1288	83	1.09						
1800	1192	83	1.09	1260	87	1.12									
2000															

Shaded area indicates air flow below 1200 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

APPENDIX A BLOWER PERFORMANCE DATA

5 TON

MODELS : DRG0603D,DRG0604D & DRG0607D WITH DDC CONTROLS

STANDARD STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	466	30	0.11	609	34	0.16	721	38	0.22	770	42	0.27	905	45	0.35
1100	541	36	0.15	669	41	0.22	773	44	0.29	831	48	0.34	948	51	0.44
1300	615	43	0.21	730	47	0.30	825	50	0.38	892	53	0.43	990	56	0.56
1500	689	49	0.29	791	53	0.40	877	56	0.51	953	59	0.55	1033	61	0.71
1700	764	56	0.41	852	59	0.55	929	62	0.67	1013	64	0.69	1075	67	0.91
1900	838	62	0.58	913	65	0.74	981	68	0.89	1074	70	0.88	1118	72	1.15
2100	912	69	0.81	973	71	0.99	1033	73	1.18	1135	75	1.12			
2300	987	76	1.14												

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	488	29	0.11	641	34	0.16	761	38	0.21	870	42	0.28	958	45	0.37
1100	566	35	0.16	704	40	0.21	816	44	0.27	917	47	0.36	1002	50	0.47
1300	643	42	0.22	768	46	0.28	870	49	0.35	965	52	0.45	1046	55	0.59
1500	721	48	0.31	831	52	0.37	924	55	0.46	1012	58	0.58	1091	60	0.75
1700	799	55	0.44	894	58	0.49	978	61	0.59	1060	63	0.73	1135	66	0.96
1900	876	61	0.61	958	64	0.65	1032	66	0.77	1107	69	0.93	1179	71	1.22
2100	954	68	0.86	1021	70	0.85	1086	72	1.00	1155	74	1.19			
2300															

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

5 TON

MODELS : DRG0603W,DRG0604W & DRG0607W WITH DDC CONTROLS

HIGH STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900				631	21	0.19	722	26	0.23	806	27	0.28	895	29	0.33
1100	562	23	0.17	680	27	0.24	767	32	0.30	849	32	0.35	932	35	0.40
1300	622	29	0.22	729	32	0.31	813	37	0.39	892	37	0.44	969	41	0.49
1500	683	35	0.30	778	38	0.41	858	43	0.50	935	43	0.54	1006	46	0.60
1700	743	41	0.41	827	43	0.53	903	49	0.65	978	48	0.68	1043	52	0.73
1900	803	47	0.55	877	49	0.68	949	55	0.75	1021	53	0.84	1081	57	0.89
2100	864	53	0.75	926	54	0.88	994	61	1.01	1064	59	1.05	1118	63	1.08
2300	924	59	1.01	975	59	1.15	1040	67	1.22	1107	64	1.31	1155	69	1.32
2500	984	65	1.36	1024	65	1.49	1085	73	1.55	1150	69	1.63	1192	74	1.62
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	967	32	0.41	1006	29	0.47	1075	32	0.54	1142	35	0.63	1197	37	0.69
1100	1001	37	0.50	1043	35	0.56	1109	38	0.65	1174	41	0.76	1228	44	0.83
1300	1035	43	0.61	1080	42	0.68	1143	45	0.78	1206	48	0.91	1259	50	1.00
1500	1069	48	0.75	1117	48	0.81	1177	51	0.93	1238	54	1.08	1290	56	1.19
1700	1103	54	0.92	1154	55	0.97	1211	57	1.12	1270	60	1.30	1321	62	1.43
1900	1137	59	1.12	1191	61	1.16	1245	64	1.34	1302	67	1.55	1352	69	1.71
2100	1170	65	1.27	1228	68	1.39	1279	70	1.60	1334	73	1.86	1383	75	2.05
2300	1204	70	1.57	1265	74	1.66	1313	77	1.92	1366	79	2.23	1414	81	2.40
2500	1238	76	1.84	1302	81	1.99	1348	83	2.29						

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900				661	20	0.17	764	23	0.21	854	25	0.27	949	29	0.40
1100	591	22	0.15	715	26	0.22	811	28	0.27	899	31	0.33	987	34	0.48
1300	654	28	0.21	768	31	0.29	858	34	0.34	943	37	0.42	1026	40	0.57
1500	717	34	0.28	822	37	0.38	906	39	0.44	988	42	0.52	1065	45	0.68
1700	780	40	0.38	875	42	0.49	953	45	0.56	1033	48	0.65	1103	51	0.82
1900	842	46	0.51	929	48	0.63	1000	50	0.71	1078	54	0.80	1142	56	0.98
2100	905	51	0.69	982	54	0.82	1048	55	0.90	1122	60	1.00	1181	62	1.17
2300	968	57	0.93	1036	59	1.06	1095	61	1.14	1167	66	1.25	1219	67	1.40
2500	1031	63	1.25	1089	65	1.38	1142	66	1.45	1212	72	1.56	1258	73	1.68
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
900	1046	31	0.40	1067	28	0.46	1140	31	0.54	1212	34	0.63	1270	37	0.64
1100	1081	37	0.48	1105	35	0.55	1176	37	0.65	1245	41	0.76	1302	43	0.78
1300	1116	42	0.59	1144	41	0.66	1211	44	0.77	1279	47	0.91	1335	49	0.96
1500	1152	47	0.72	1182	47	0.79	1247	50	0.93	1312	53	1.09	1367	55	1.11
1700	1187	53	0.88	1221	54	0.95	1282	56	1.11	1345	59	1.30	1400	61	1.34
1900	1222	58	1.08	1259	60	1.14	1318	63	1.33	1379	65	1.56	1432	67	1.59
2100	1258	64	1.32	1298	67	1.36	1354	69	1.59	1412	71	1.87	1464	73	1.94
2300	1293	69	1.61	1336	73	1.63	1389	75	1.90	1445	78	2.23	1497	80	2.30
2500	1328	75	1.97	1375	79	1.95	1425	82	2.28						

Shaded area indicates air flow below 1500 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

APPENDIX A BLOWER PERFORMANCE DATA

6 TON

MODELS : DRG0723D,DRG0724D & DRG0727D WITH DDC CONTROLS

STANDARD STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	580	34	0.19	691	40	0.24	796	46	0.32	887	51	0.37	971	56	0.50
1400	639	43	0.25	742	49	0.31	839	54	0.40	923	59	0.45	1001	64	0.61
1600	699	53	0.33	793	58	0.39	882	63	0.50	959	67	0.55	1032	71	0.74
1800	758	62	0.44	844	66	0.50	925	71	0.63	995	75	0.68	1062	79	0.91
2000	818	71	0.58	895	75	0.63	968	80	0.78	1031	83	0.83	1093	87	1.11
2200	877	80	0.77	946	84	0.80	1012	88	0.97	1067	90	1.01			
2400	937	90	1.01	997	90	1.02									

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	609	33	0.19	727	39	0.24	840	45	0.32	937	50	0.40	1028	55	0.47
1400	671	42	0.25	780	48	0.31	885	53	0.40	975	58	0.49	1059	62	0.56
1600	732	51	0.32	834	56	0.40	930	61	0.49	1012	66	0.60	1091	70	0.67
1800	794	60	0.42	887	65	0.50	975	69	0.61	1050	74	0.73	1123	78	0.80
2000	856	69	0.54	940	73	0.64	1019	78	0.77	1088	82	0.89	1154	86	0.96
2200	918	78	0.70	993	82	0.81	1064	86	0.95	1125	90	1.08			
2400	980	87	0.91	1047	90	1.03									

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

6 TON

MODELS : DRG0723W,DRG0724W & DRG0727W WITH DDC CONTROLS

HIGH STATIC

DOWN FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	583	19	0.20	675	22	0.25	777	27	0.31	864	31	0.36	942	34	0.45
1400	643	27	0.25	730	30	0.32	826	34	0.38	908	38	0.43	982	41	0.55
1600	703	35	0.32	786	37	0.40	875	41	0.48	952	44	0.53	1021	47	0.67
1800	764	42	0.40	841	45	0.51	925	48	0.60	996	51	0.65	1061	54	0.81
2000	824	50	0.51	897	52	0.65	974	55	0.74	1041	58	0.79	1101	61	0.99
2200	884	57	0.65	952	60	0.83	1023	62	0.93	1085	65	0.97	1140	67	1.21
2400	944	65	0.83	1007	67	1.05	1073	70	1.16	1129	72	1.18	1180	74	1.48
2600	1005	72	1.05	1063	74	1.33	1122	77	1.44	1173	79	1.44	1220	81	1.81
2800	1065	80	1.34	1118	82	1.70	1171	84	1.80	1217	86	1.76	1259	87	2.21
3000	1125	87	1.70	1174	89	2.16	1220	90	2.24						
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	1015	35	0.55	1079	38	0.57	1139	38	0.70	1199	41	0.81	1252	44	0.81
1400	1051	42	0.66	1112	44	0.67	1170	45	0.82	1228	48	0.95	1280	51	0.93
1600	1088	49	0.79	1145	51	0.79	1201	52	0.97	1258	55	1.12	1309	57	1.07
1800	1124	55	0.94	1178	58	0.93	1232	59	1.14	1287	62	1.31	1338	64	1.23
2000	1160	62	1.13	1211	65	1.09	1263	66	1.33	1316	69	1.54	1367	71	1.42
2200	1197	69	1.35	1245	71	1.28	1294	73	1.56	1346	75	1.81	1395	77	1.63
2400	1233	76	1.61	1278	78	1.50	1325	80	1.84	1375	82	2.12	1424	84	1.88
2600	1269	83	1.93	1311	85	1.76	1356	87	2.15	1404	89	2.20	1453	90	2.30
2800	1305	90	2.31	1344	90	2.06									
3000															

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

HORIZONTAL FLOW

CFM	0.2			0.4			0.6			0.8			1.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	604	18	0.19	711	22	0.24	821	26	0.33	913	30	0.38	993	33	0.43
1400	668	25	0.25	769	29	0.30	872	33	0.41	959	37	0.46	1034	40	0.52
1600	732	33	0.32	827	36	0.38	923	40	0.51	1005	43	0.56	1075	46	0.62
1800	796	40	0.40	884	43	0.47	975	47	0.64	1052	50	0.69	1116	53	0.74
2000	859	48	0.51	942	51	0.58	1026	54	0.80	1098	57	0.84	1157	59	0.88
2200	923	55	0.65	1000	58	0.73	1077	61	1.00	1144	63	1.03	1198	66	1.06
2400	987	63	0.82	1058	65	0.91	1129	68	1.24	1190	70	1.26	1239	72	1.27
2600	1051	70	1.05	1115	73	1.13	1180	75	1.55	1236	77	1.53	1280	79	1.52
2800	1115	78	1.33	1173	80	1.41	1231	82	1.93	1282	84	1.87	1321	85	1.82
3000	1178	85	1.69	1231	87	1.75	1283	89	2.40						
CFM	1.2			1.4			1.6			1.8			2.0		
	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP	RPM	DDC %	BHP
1200	1076	34	0.57	1144	37	0.60	1208	37	0.74	1272	40	0.85	1327	43	0.89
1400	1113	41	0.68	1178	43	0.71	1240	44	0.87	1303	47	1.00	1358	50	1.05
1600	1151	47	0.82	1213	50	0.83	1272	51	1.02	1333	54	1.18	1389	56	1.23
1800	1189	54	0.98	1247	57	0.98	1305	58	1.20	1364	61	1.38	1421	63	1.44
2000	1227	61	1.17	1282	63	1.15	1337	65	1.41	1394	67	1.62	1452	69	1.69
2200	1264	68	1.40	1316	70	1.34	1370	72	1.66	1425	74	1.90	1483	75	1.98
2400	1302	74	1.68	1350	76	1.58	1402	78	1.94	1455	81	2.23	1514	82	2.33
2600	1340	81	2.01	1385	83	1.85	1434	85	2.28						
2800															
3000															

Shaded area indicates air flow below 1800 SCFM (300 SCFM/ton) that is not recommended for High Stage cooling or heating.

Valid motor operating range for DDC% setting is 20 - 90.

APPENDIX B ELECTRICAL DATA

ELECTRICAL DATA

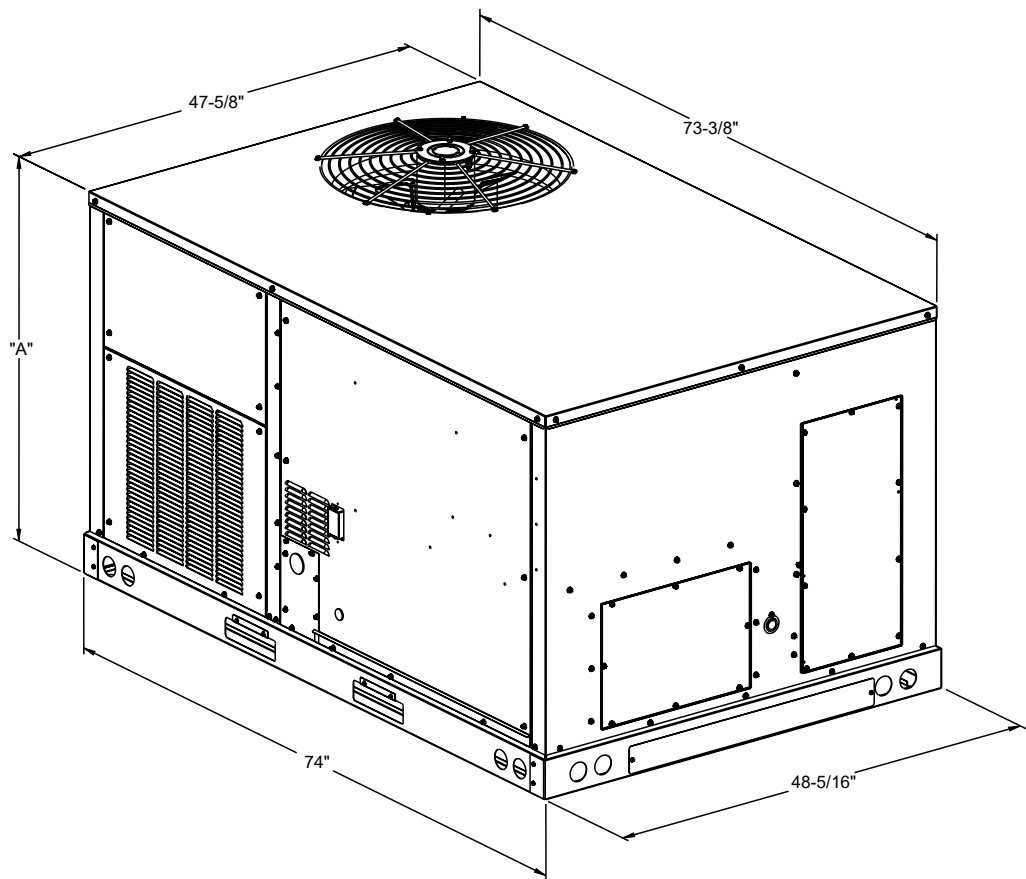
Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DRG0361D	208/230/1/60	1	15.6	83	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	26.2/26.2	40/40
											-	-	-	9.6/8.7	-	35.8/34.9	50/50
											-	-	-	-	1.7/1.5	27.9/27.7	40/40
											-	-	-	9.6/8.7	1.7/1.5	37.5/36.4	50/50
DRG0363D	208/230/3/60	1	11.6	73	1	0.17	0.95	1	0.75	5.7	-	-	-	-	-	21.2/21.2	30/30
											-	-	-	9.6/8.7	-	30.8/29.9	40/40
											-	-	-	-	1.7/1.5	22.9/22.7	30/30
											-	-	-	9.6/8.7	1.7/1.5	32.5/31.4	40/40
DRG0363W	208/230/3/60	1	11.6	73	1	0.17	0.95	1	1.2	5	-	-	-	-	-	20.5/20.5	30/30
											-	-	-	9.6/8.7	-	30.1/29.2	40/40
											-	-	-	-	1.7/1.5	22.2/22.0	30/30
											-	-	-	9.6/8.7	1.7/1.5	31.8/30.7	40/40
DRG0364D	460/3/60	1	5.7	38	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	10.1	15
											-	-	-	4.3	-	14.4	20
											-	-	-	-	0.5	10.6	15
											-	-	-	4.3	0.5	14.9	20
DRG0364W	460/3/60	1	5.7	38	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	10.1	15
											-	-	-	4.3	-	14.4	20
											-	-	-	-	0.5	10.6	15
											-	-	-	4.3	0.5	14.9	20
DRG0367D	575/3/60	1	4	25.6	1	0.17	0.39	1	1.2	2	-	-	-	-	-	7.4	15
											-	-	-	3.5	-	10.9	15
											-	-	-	-	1.7	8.0	15
											-	-	-	3.5	1.7	11.5	15
DRG0367W	575/3/60	1	4	25.6	1	0.17	0.39	1	1.2	2	-	-	-	-	-	7.4	15
											-	-	-	3.5	-	10.9	15
											-	-	-	-	1.7	8.0	15
											-	-	-	3.5	1.7	11.5	15
DRG0481D	208/230/1/60	1	21.2	104	1	0.17	0.95	1	1	6.9	-	-	-	-	-	34.3/34.3	50/50
											-	-	-	9.6/8.7	-	43.9/43.0	60/60
											-	-	-	-	1.7/1.5	36.0/35.8	50/50
											-	-	-	9.6/8.7	1.7/1.5	45.6/44.5	60/60
DRG0483D	208/230/3/60	1	14	83.1	1	0.17	0.95	1	1	6.9	-	-	-	-	-	25.4/25.4	35/35
											-	-	-	9.6/8.7	-	35.0/34.1	45/45
											-	-	-	-	1.7/1.5	27.1/26.9	40/40
											-	-	-	9.6/8.7	1.7/1.5	36.7/35.6	50/45
DRG0483W	208/230/3/60	1	14	83.1	1	0.17	0.95	1	1.2	5	-	-	-	-	-	23.5/23.5	35/35
											-	-	-	9.6/8.7	-	33.1/32.2	45/45
											-	-	-	-	1.7/1.5	25.2/25.0	35/35
											-	-	-	9.6/8.7	1.7/1.5	34.8/33.7	45/45
DRG0484D	460/3/60	1	6.4	41	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	11.0	15
											-	-	-	4.3	-	15.3	20
											-	-	-	-	0.5	11.5	15
											-	-	-	4.3	0.5	15.8	20
DRG0484W	460/3/60	1	6.4	41	1	0.17	0.48	1	1.2	2.5	-	-	-	-	-	11.0	15
											-	-	-	4.3	-	15.3	20
											-	-	-	-	0.5	11.5	15
											-	-	-	4.3	0.5	15.8	20
DRG0487D	575/3/60	1	4.6	33	1	0.17	0.39	1	1.2	2	-	-	-	-	-	8.1	15
											-	-	-	3.5	-	11.6	15
											-	-	-	-	1.7	8.7	15
											-	-	-	3.5	1.7	12.2	15

APPENDIX B ELECTRICAL DATA

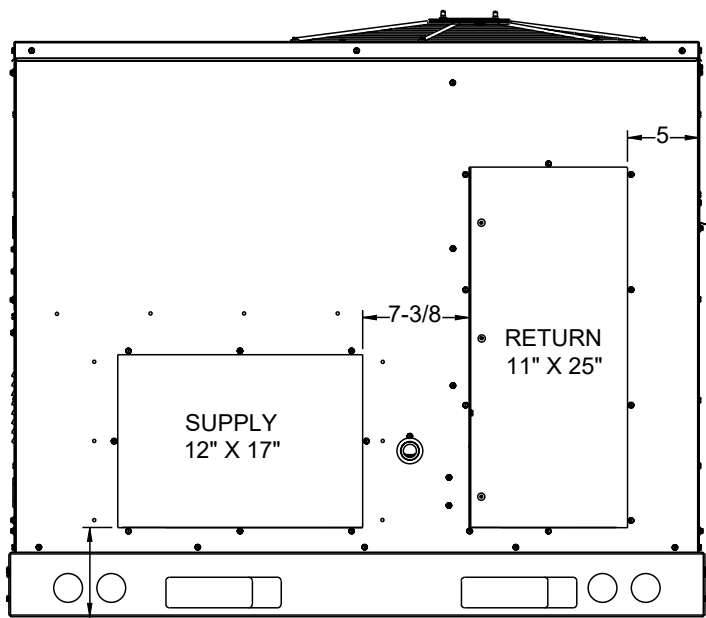
ELECTRICAL DATA

Model Number	Electrical Rating	Compressor			Outdoor Fan Motor			Indoor Fan Motor			Optional Electric Heat			Optional Powered Convenience Outlet	Optional Power Exhaust	Power Supply	
		QTY	RLA	LRA	QTY	HP	FLA	QTY	HP	FLA	Part #	KW*	FLA	FLA	FLA	MCA	MOP
DRG0487W	575/3/60	1	4.6	33	1	0.17	0.39	1	1.2	2	-	-	-	-	-	8.1	15
											-	-	-	3.5	-	11.6	15
											-	-	-	-	1.7	8.7	15
											-	-	-	3.5	1.7	12.2	15
DRG0601D	208/230/1/60	1	26.9	139.9	1	0.33	2.6	1	1	6.9	-	-	-	-	-	43.2/43.2	70/70
											-	-	-	9.6/8.7	-	52.8/51.9	70/70
											-	-	-	-	1.7/1.5	44.9/44.7	70/70
											-	-	-	9.6/8.7	1.7/1.5	54.5/53.4	80/80
DRG0603D	208/230/3/60	1	16.2	110	1	0.33	2.6	1	1	6.9	-	-	-	-	-	29.8/29.8	45/45
											-	-	-	9.6/8.7	-	39.4/38.5	50/50
											-	-	-	-	1.7/1.5	31.5/31.3	45/45
											-	-	-	9.6/8.7	1.7/1.5	41.1/40.0	50/50
DRG0603W	208/230/3/60	1	16.2	110	1	0.33	2.6	1	2.3	7.7	-	-	-	-	-	30.6/30.6	45/45
											-	-	-	9.6/8.7	-	40.2/39.3	50/50
											-	-	-	-	1.7/1.5	32.3/32.1	45/45
											-	-	-	9.6/8.7	1.7/1.5	41.9/40.8	50/50
DRG0604D	460/3/60	1	7.6	52	1	0.33	1.6	1	1.2	2.5	-	-	-	-	-	13.6	20
											-	-	-	4.3	-	17.9	25
											-	-	-	-	0.5	14.1	20
											-	-	-	4.3	0.5	18.4	25
DRG0604W	460/3/60	1	7.6	52	1	0.33	1.6	1	2.3	4.5	-	-	-	-	-	15.6	20
											-	-	-	4.3	-	19.9	25
											-	-	-	-	0.5	16.1	20
											-	-	-	4.3	0.5	20.4	25
DRG0607D	575/3/60	1	5.3	38.9	1	0.33	1.144	1	1.2	2	-	-	-	-	-	9.8	15
											-	-	-	3.5	-	13.3	15
											-	-	-	-	1.7	10.4	15
											-	-	-	3.5	1.7	13.9	15
DRG0607W	575/3/60	1	5.3	38.9	1	0.33	1.144	1	2.3	3.8	-	-	-	-	-	11.6	15
											-	-	-	3.5	-	15.1	20
											-	-	-	-	1.7	12.2	15
											-	-	-	3.5	1.7	15.7	20
DRG0723D	208/230/3/60	1	17.6	136	1	0.33	2	1	1.2	5	-	-	-	-	-	29.0/29.0	45/45
											-	-	-	9.6/8.7	-	38.6/37.7	50/50
											-	-	-	-	1.7/1.5	30.7/30.5	45/45
											-	-	-	9.6/8.7	1.7/1.5	40.3/39.2	50/50
DRG0723W	208/230/3/60	1	17.6	136	1	0.33	2	1	2.3	7.7	-	-	-	-	-	31.7/31.7	45/45
											-	-	-	9.6/8.7	-	41.3/40.4	50/50
											-	-	-	-	1.7/1.5	33.4/33.2	50/50
											-	-	-	9.6/8.7	1.7/1.5	43.0/41.9	60/50
DRG0724D	460/3/60	1	8.5	66.1	1	0.33	0.85	1	1.2	2.5	-	-	-	-	-	13.9	20
											-	-	-	4.3	-	18.2	25
											-	-	-	-	0.5	14.4	20
											-	-	-	4.3	0.5	18.7	25
DRG0724W	460/3/60	1	8.5	66.1	1	0.33	0.85	1	2.3	4.5	-	-	-	-	-	15.9	20
											-	-	-	4.3	-	20.2	25
											-	-	-	-	0.5	16.4	20
											-	-	-	4.3	0.5	20.7	25
DRG0727D	575/3/60	1	6.3	55.3	1	0.33	0.67	1	1.2	2	-	-	-	-	-	10.6	15
											-	-	-	3.5	-	14.1	20
											-	-	-	-	1.7	11.2	15
											-	-	-	3.5	1.7	14.7	20
DRG0727W	575/3/60	1	6.3	55.3	1	0.33	0.67	1	2.3	3.8	-	-	-	-	-	12.4	15
											-	-	-	3.5	-	15.9	20
											-	-	-	-	1.7	13.0	15
											-	-	-	3.5	1.7	16.5	20

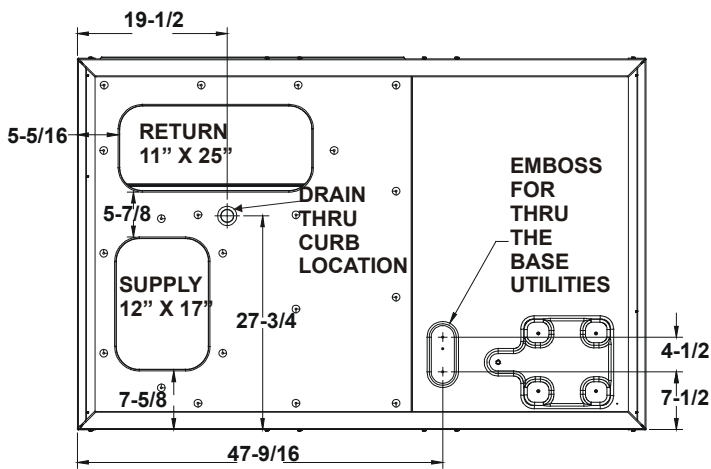
APPENDIX C UNIT DIMENSIONS



TONNAGE	UNIT HEIGHT	HORIZONTAL CONDENSATE DRAIN	
	DIM "A" (ABOVE)	DIM "B" (BELOW)	DIM "C" (BELOW)
		DRG	DRG
3 TON	39-7/8"	20"	11-1/2"
4 TON	43-1/2"		15"
5 TON			8-1/8"
6 TON	53-3/4"		15"



HORIZONTAL DISCHARGE



BOTTOM VIEW OF UNIT

VERTICAL DISCHARGE

NOTE: REFER TO IOD-7082 INCLUDED IN THE LITERATURE PACK FOR INSTALLING HORIZONTAL DUCT COVERS.

APPENDIX D MIN-MAX AIRFLOW

AIR FLOW RANGE FOR HIGH STAGE

UNIT	HEAT RANGE	HIGH FIRE RATE BTU/HR	<u>HEATING</u> MINIMUM SCFM	<u>COOLING</u> MINIMUM SCFM	MAXIMUM SCFM
DRG036	LOW	45,000	750	900	1500
	MEDIUM	70,000	950		
	HIGH	115,000	1150		
DRG048	LOW	70,000	950	1200	2000
	MEDIUM	115,000	1325		
	HIGH	140,000	1500		
DRG060	LOW	70,000	950	1500	2500
	MEDIUM	115,000	1150		
	HIGH	140,000	1615		
DRG072	LOW	70,000	950	1800	3000
	MEDIUM	125,000	1565		
	HIGH	150,000	1730		

WARNING

HIGH VOLTAGE!

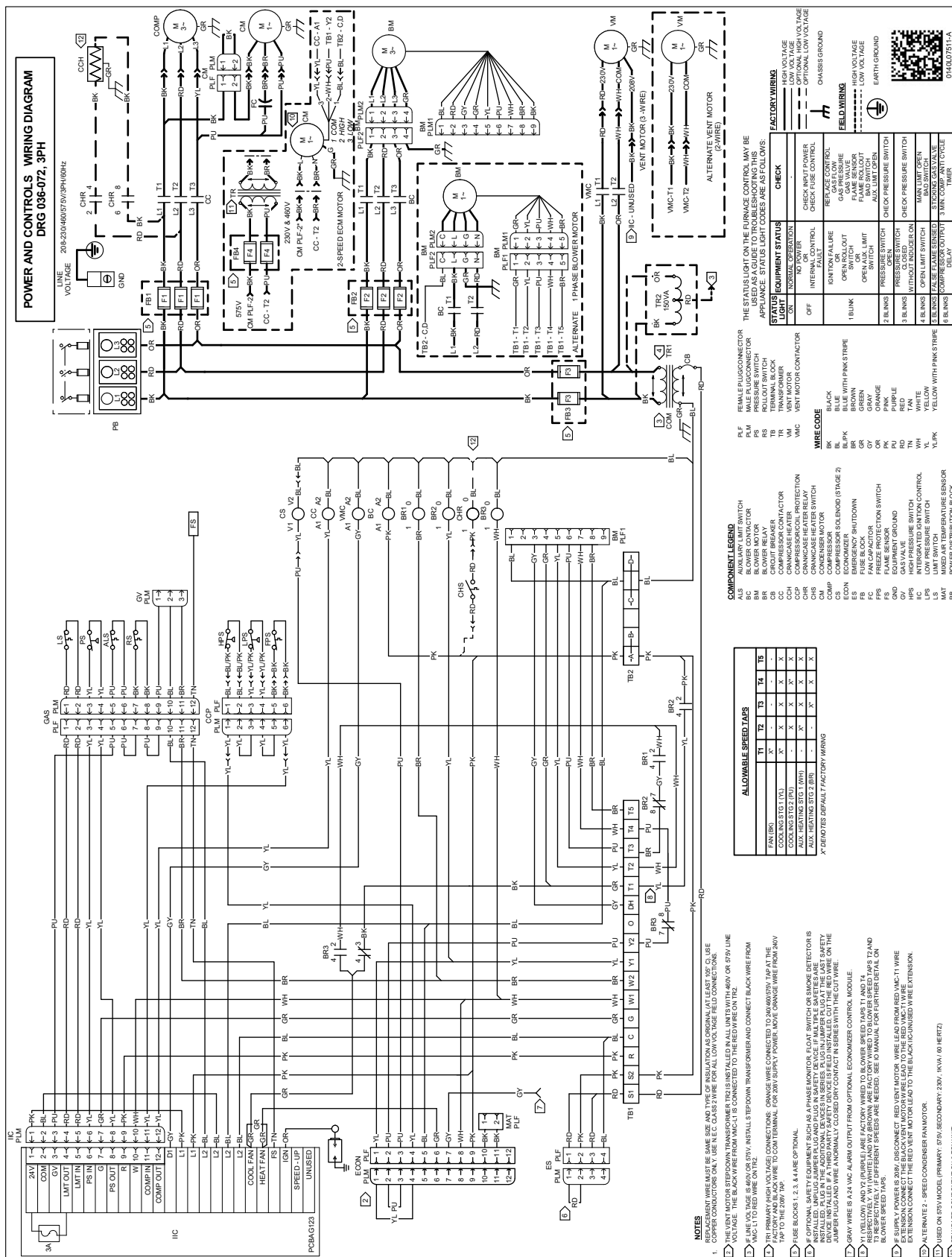
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



DRG 3 PHASE STANDARD STATIC WIRING DIAGRAM

WARNING

HIGH VOLTAGE!
 DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.

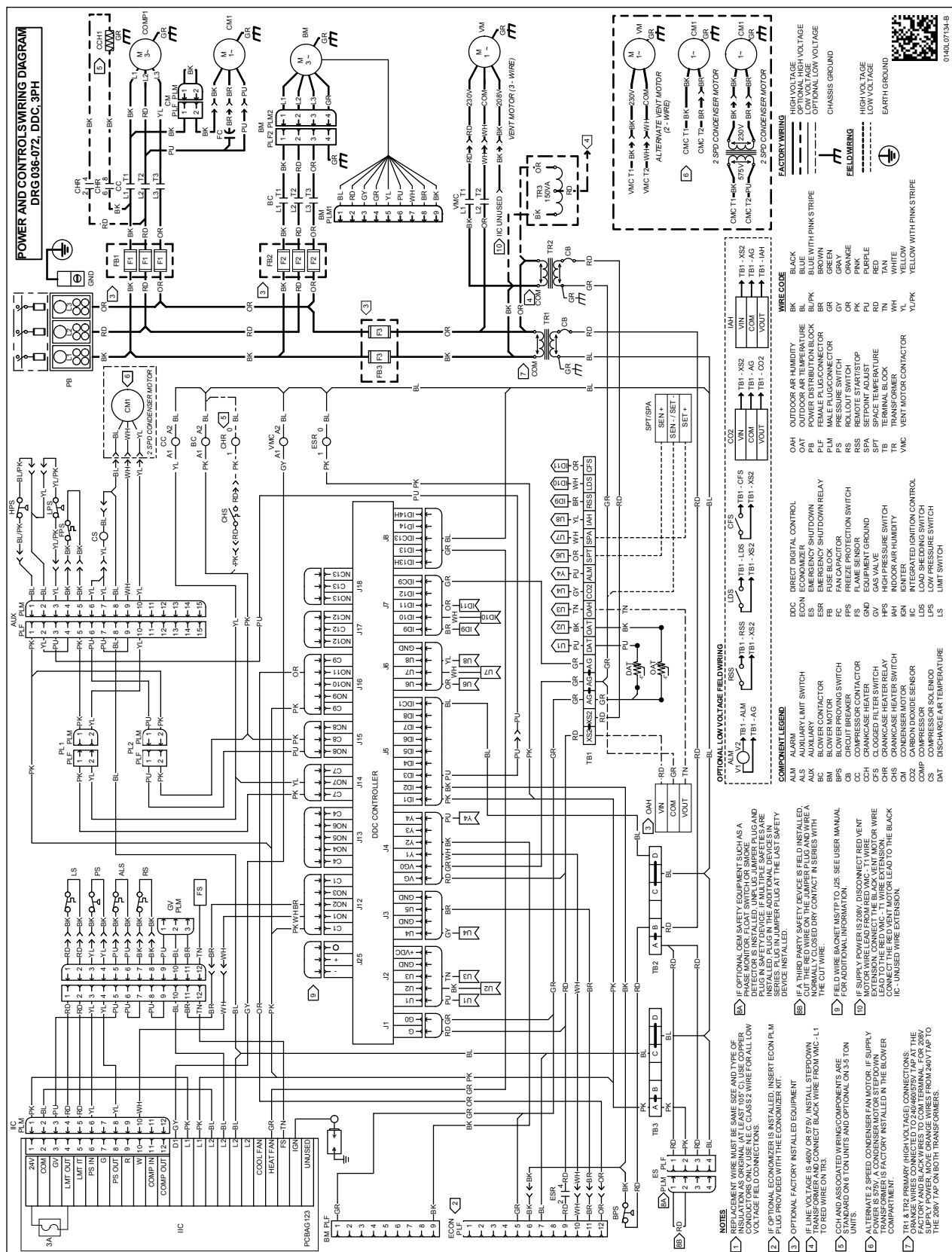
WARNING

HIGH VOLTAGE!

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



DRG 3 PHASE DDC WIRING DIAGRAM



Wiring is subject to change. Always refer to the wiring diagram on the unit for the most up-to-date wiring.



Start-up Checklist

**Store in job file*

Date: _____ Location: _____
Model Number: _____
Serial Number: _____
Technician: _____ Unit #: _____

Pre Start-Up

(Check each item as completed)

- ☐ Verify all packaging material has been removed.
- ☐ Remove all shipping brackets per installation instructions.
- ☐ Verify the job site voltage agrees with the unit serial plate.
- ☐ Verify condensate connection is installed per installation instructions.
- ☐ Verify proper clearance around the unit for safety, service, maintenance and proper unit operation.
- ☐ Verify proper weatherproofing of all ductwork, roof curbs and electrical connections.
- ☐ Check that the flue screen is in place.
- ☐ Check gas piping for leaks.
- ☐ Verify gas pressure to the unit is within the range specified on the serial plate.
- ☐ Check to ensure that all fans, pulleys and wheels are secure.
- ☐ Check for proper belt tension and alignment per installation instructions.
- ☐ Check refrigerant piping for rubbing and leaks. *Repair if necessary.*
- ☐ Check unit wiring to ensure it is not in contact with refrigerant piping or sharp metal edges.
- ☐ Check all electrical connections and terminals. *Tighten as needed.*
- ☐ Verify that the crankcase heaters have been energized for 24 hours.
- ☐ Verify the scroll compressor(s) are rotating in the right direction.
- ☐ Verify all accessories are installed and operating correctly.
- ☐ Check filters and replace if necessary.
- ☐ Verify the installation of the thermostat.



Start-up Checklist

Start-Up

(Insert the values as each item is completed.)

ELECTRICAL

Supply Voltage	L1 - L2	_____	L2 - L3	_____	L3 - L1	_____
Circuit 1 Compressor Amps	L1	_____	L2	_____	L3	_____
Circuit 2 Compressor Amps	L1	_____	L2	_____	L3	_____
Blower Amps	L1	_____	L2	_____	L3	_____
Condenser Fan Amps	Fan 1	_____	Fan 2	_____	Fan 3	_____

BLOWER EXTERNAL STATIC PRESSURE

Return Air Static Pressure	_____	IN. W.C.
Supply Air Static Pressure	_____	IN. W.C.
Total External Static Pressure	_____	IN. W.C.
Blower Wheel RPM	_____	RPM

TEMPERATURES

Outdoor Air Temperature	_____	DB	_____	WB
Return Air Temperature	_____	DB	_____	WB
Cooling Supply Air Temperature	_____	DB	_____	WB
Heating Supply Air Temperature	_____	DB	_____	

PRESSURES

Gas Inlet Pressure	_____	IN. W.C.		
Gas Manifold Pressure	_____	IN. W.C. (Low Fire)	_____	IN. W.C. (High Fire)
Suction Circuit 1	_____	PSIG	_____	°F
Superheat (Orifice System)			_____	°F
Suction Circuit 2	_____	PSIG	_____	°F
Superheat (Orifice System)			_____	°F
Discharge Circuit 1	_____	PSIG	_____	°F
Subcooling (TXV System)			_____	°F
Discharge Circuit 2	_____	PSIG	_____	°F
Subcooling (TXV System)			_____	°F

(HEAT PUMP ONLY)

Suction Circuit 1	_____	PSIG	_____	°F
Suction Circuit 2	_____	PSIG	_____	°F
Discharge Circuit 1	_____	PSIG	_____	°F
Discharge Circuit 2	_____	PSIG	_____	°F

THIS PAGE LEFT INTENTIONALLY BLANK

THIS PAGE LEFT INTENTIONALLY BLANK

THIS PAGE LEFT INTENTIONALLY BLANK

CUSTOMER FEEDBACK

Daikin is very interested in all product comments.

Please fill out the feedback form on the following link:

<https://daikincomfort.com/contact-us>

You can also scan the QR code on the right to be directed to the feedback page.



Our continuing commitment to quality products may mean a change in specifications without notice.

©2019-2020, 2022-2023 **DAIKIN COMFORT TECHNOLOGIES MANUFACTURING, L.P.**

19001 Kermier Rd., Waller, TX 77484

www.daikincomfort.com