C60684
0106

THOMAS
A Gardner Denver Product

TA, GH & LGH SERIES OIL-LESS PISTON AIR COMPRESSORS AND VACUUM PUMPS

INSTALLATION AND MAINTENANCE MANUAL

Please read and follow all recommended maintenance, installation, operation and safety instructions provided in this manual. The nameplate is located on the side of the motor housing.

MODELS

TA-3052	TA-1061	LGH-106	GH-3051B	GH-605B	GH-417B	TA-2101-DC
TA-4052	TA-2051	LGH-210	GH-3101B	GH-610B	GH-517B	TA-3101-DC
TA-4102	TA-2101	LGH-305	GH-3052B	GH-3V1B	GH-617B	TA-4101-DC
TA-5052	TA-3051	LGH-310	GH-405B	GH-3V2B		
TA-5102	TA-3101	LGH-1V	GH-410B	GH-4VB		
TA-6052	TA-4051	LGH-2V	GH-505B	GH-5VB		
TA-6102	TA-4101		GH-510B			
TA-7102	TA-1V1					
TA-3V2	TA-2V1					
TA-4V2						

AMBIENT CONDITIONS

Units should be operated in a well ventilated area where the surrounding air is relatively clean, dry, and temperatures are consistently within the range of 35° F to 95° F. NOTE: UNIT REQUIRES NO LUBRICATION, BEARINGS ARE FACTORY SEALED FOR LIFE.

ELECTRICAL

SINGLE PHASE MOTORS include internal thermal overload protection, an automatic reset device. **Warning - Disconnect electric power before servicing. Thermal protector can automatically start motor when the device resets.**

THREE PHASE MOTORS do not include internal motor overload protection. It is recommended that a magnetic motor starter with overload devices (heaters) be installed for protection from overload conditions. Heaters should be sized to protect motor from exceeding the rated service factor amperage (SFA) indicated on the motor data plate. Connecting field wiring to motor leads must be made carefully to provide correct rotation, as indicated by the rotation label on the unit. Incorrect rotation will lead to compressor and motor damage.

Both single and three phase motors are designed to operate within a ±10% range from rated nameplate voltage. Excessively high or low voltage will cause an increase in running amps and motor temperatures which will trip the protective devices in the motor circuit. NOTE: MOST MOTORS ARE DUAL VOLTAGE. Always check wiring label located on rear surface of terminal box cover plate to insure that motor leads are properly connected to match field power supply voltage.

DIRECT CURRENT (DC) MOTORS must be wired in accordance with local electrical codes, protected by a separate over-current protector (fuse) located in the positive (+) lead wire (minimum 8 gauge) from power source. Fuse should be based on 115% of full motor load. Electrical connections must be made using ring type connectors. All connections must be electrically, mechanically and galvanically sound to withstand vibration and movement encountered in normal service of unit. **WARNING: AS WITH ANY ELECTRICAL DEVICE THAT USES A BATTERY FOR A POWER SOURCE, AN ELECTRICAL SPARK MAY OCCUR WHEN CONNECTING MOTOR/COMPRESSOR. DO NOT DISCONNECT MOTOR/COMPRESSOR OR BATTERY WHILE IN THE PRESENCE OF ANY FLAMMABLE LIQUID OR ATMOSPHERE.**

EXTENSION CORDS incur a voltage drop associated with the length of cord and wire size used. For extensions less than 50' in length, use at least number 14 AWG wire size. For extensions 50' and over, a minimum of 12 AWG wire size should be used.

WARNING– These Products are suitable for pumping only atmospheric air. As defined in Compressed Gas Association Pamphlet G-7, Page 3, atmospheric air is a mixture of elements and compounds where nitrogen and oxygen comprise more than 99% with all other trace gases comprising less than 1%. DO NOT USE THIS PRODUCT IN CONTAMINATED ENVIRONMENTS OR FOR PUMPING MIXTURES OTHER THAN ATMOSPHERIC AIR.

⚠ WARNING

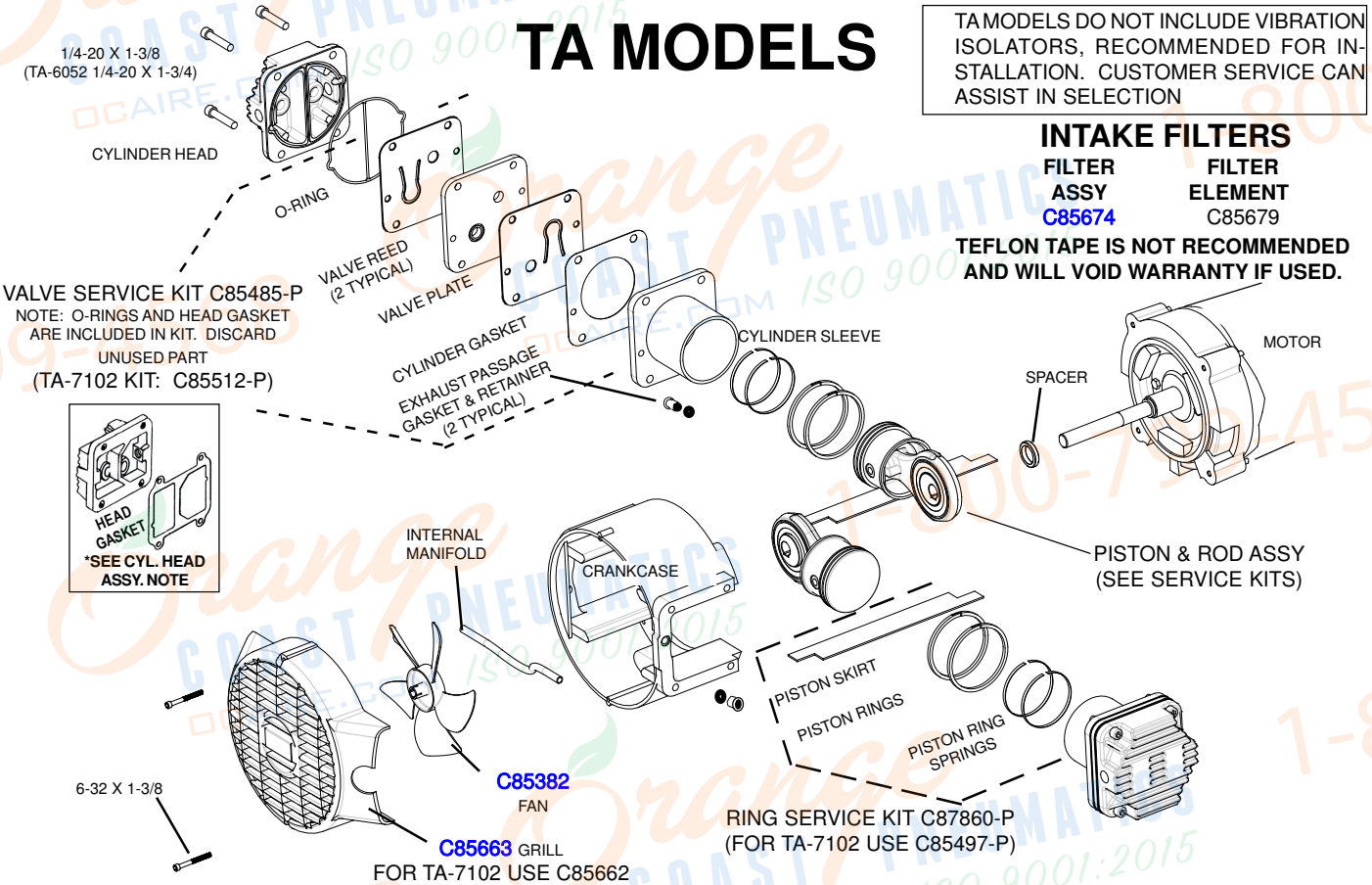
OSHA SPECIFICATIONS REQUIRE ALL BREATHING AIR SYSTEMS TO MEET THE STANDARDS AS SPECIFIED FOR "TYPE 1, GROUP D AIR," AS FURTHER DEFINED IN CGA PAMPHLET G-7. **THEREFORE, ALL COMPRESSED AIR BREATHING SYSTEMS MUST INCLUDE AIR FILTRATION EQUIPMENT FROM COMPRESSOR INTAKE TO FINAL RESPIRATOR DEVICE.**

PARTS LISTS

NOTE: TEFLON TAPE IS NOT RECOMMENDED ON INTAKE FILTERS AND WILL VOID WARRANTY.

TA MODELS

TA MODELS DO NOT INCLUDE VIBRATION ISOLATORS, RECOMMENDED FOR INSTALLATION. CUSTOMER SERVICE CAN ASSIST IN SELECTION

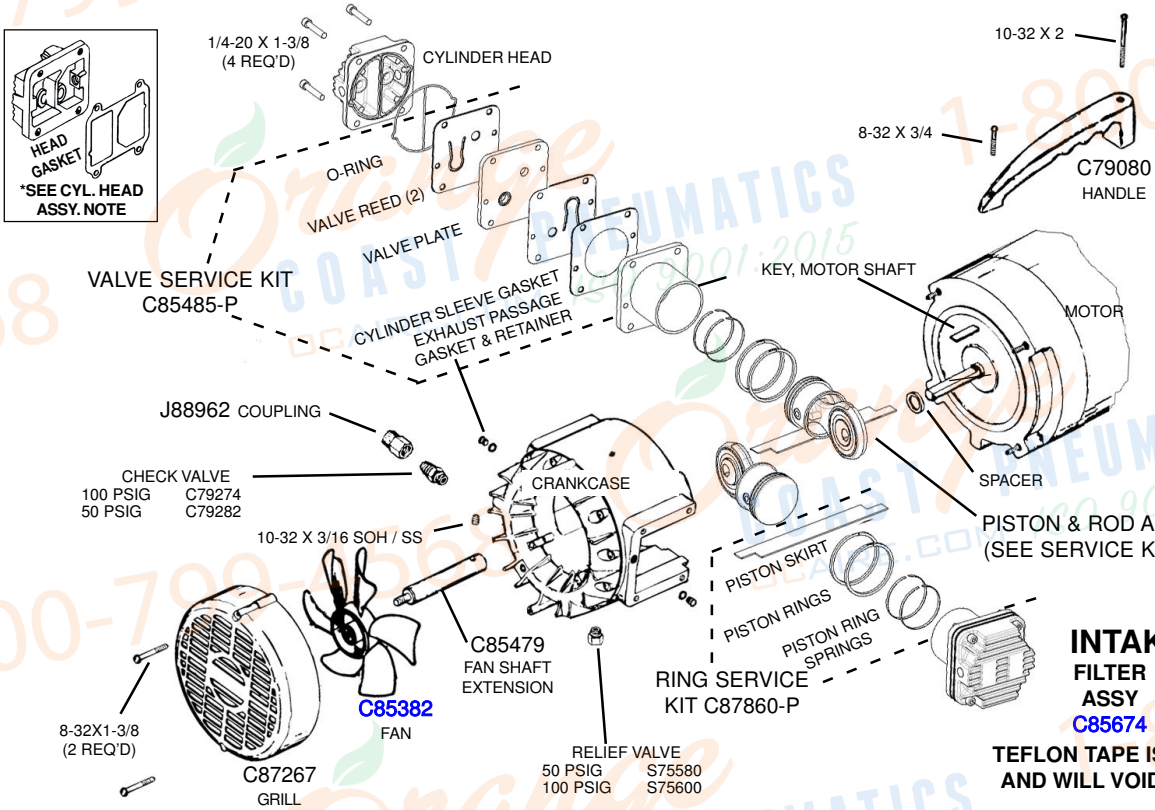


INTAKE FILTERS

FILTER ASSY	FILTER ELEMENT
C85674	C85679

TEFLON TAPE IS NOT RECOMMENDED AND WILL VOID WARRANTY IF USED.

GH 50 & 100 PSI MODELS

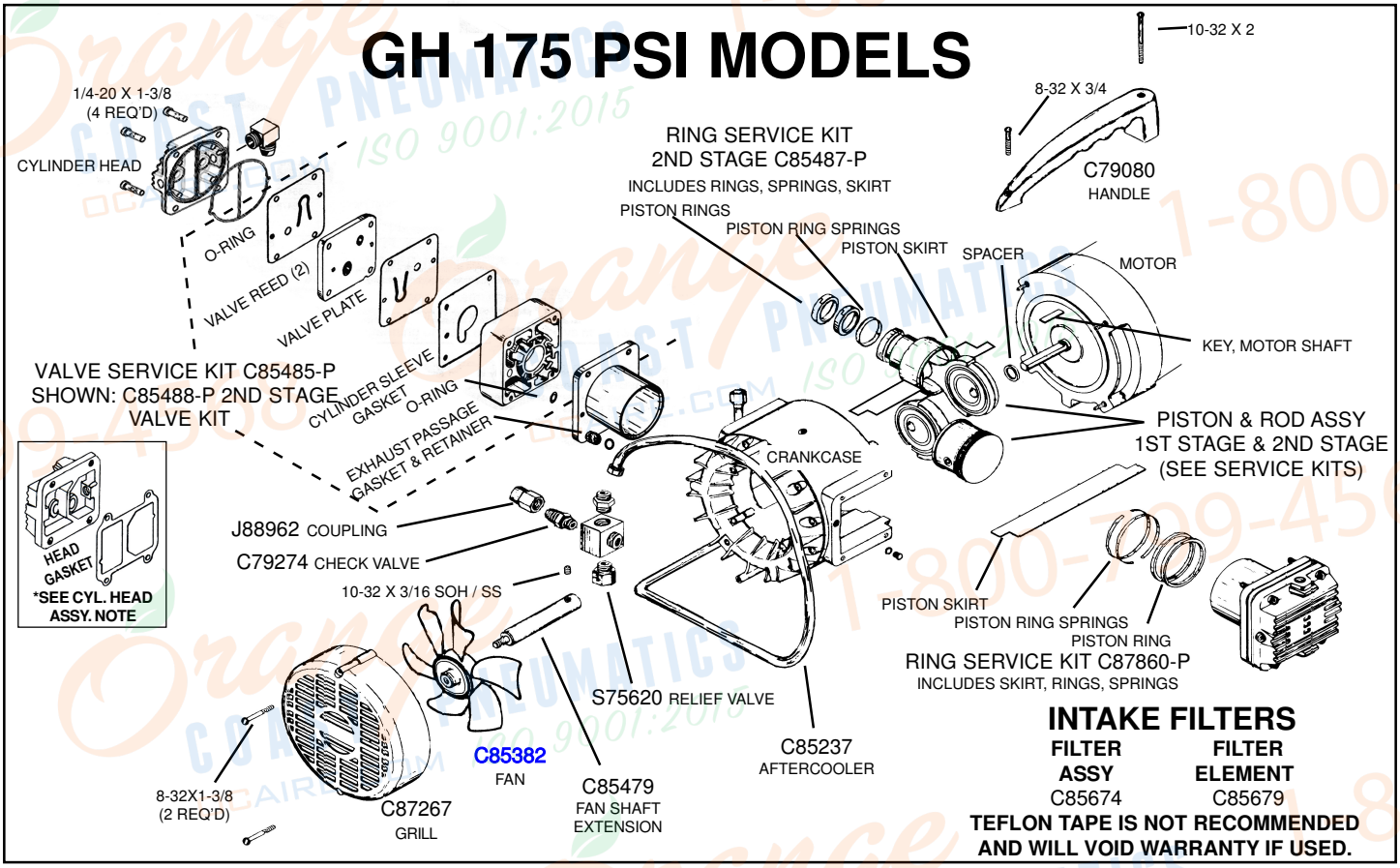


INTAKE FILTERS

FILTER ASSY	FILTER ELEMENT
C85674	C85679

TEFLON TAPE IS NOT RECOMMENDED AND WILL VOID WARRANTY IF USED.

GH 175 PSI MODELS



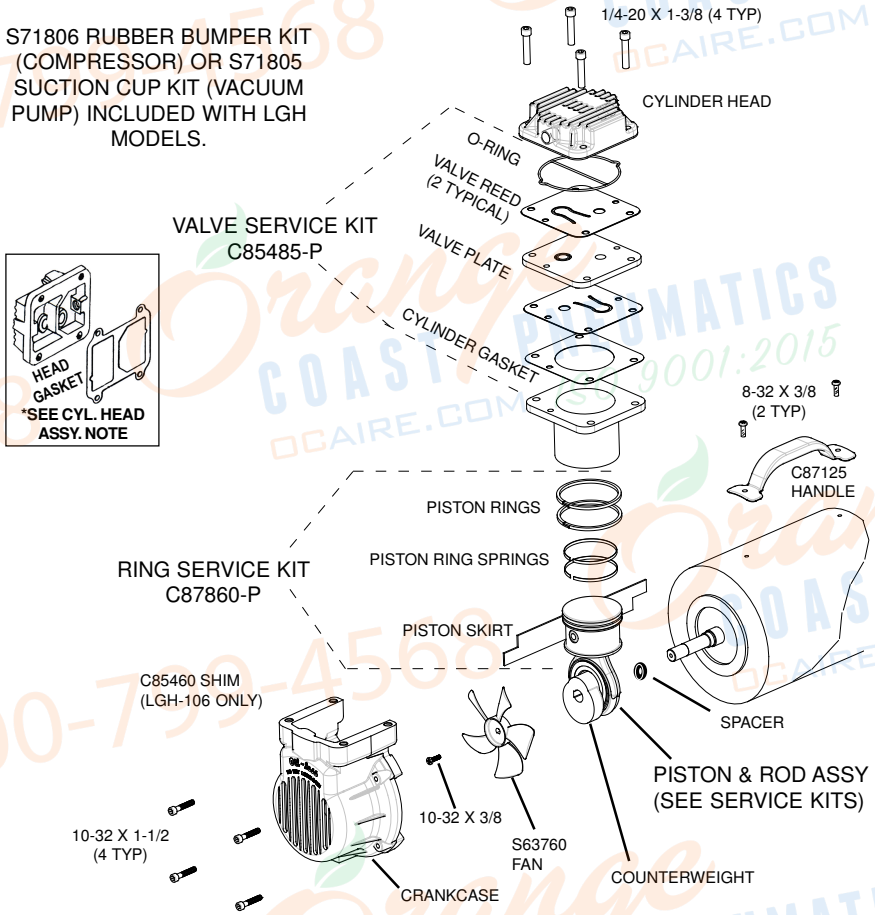
INTAKE FILTERS

FILTER ASSY	FILTER ELEMENT
C85674	C85679

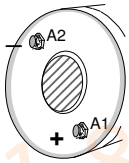
TEFLON TAPE IS NOT RECOMMENDED AND WILL VOID WARRANTY IF USED.

CYLINDER HEAD NOTE: ALL TA & GH UNITS MAY HAVE O-RING STYLE HEADS OR GASKET STYLE HEADS INSTALLED AT FACTORY. THE VALVE SERVICE KIT COVERS BOTH STYLES.

S71806 RUBBER BUMPER KIT (COMPRESSOR) OR S71805 SUCTION CUP KIT (VACUUM PUMP) INCLUDED WITH LGH MODELS.



DC MOTOR CONNECTION



DC MOTOR POWER SUPPLY: CONNECT POSITIVE (+) LEAD TO A1 TERMINAL FOR CORRECT ROTATION.

DC BRUSH KIT C85517 (2 REQUIRED) RECOMMENDED REPLACEMENT AT 1000-2000 HOURS

INTAKE FILTERS

FILTER ASSY	FILTER ELEMENT
C85676	C85681

TEFLON TAPE IS NOT RECOMMENDED AND WILL VOID WARRANTY IF USED.

TA 1 CYL. & LGH MODELS

SERVICE KITS

NOTE: SERVICE KITS REPAIR (1) CYLINDER. MINOR KIT RECOMMENDED AT 6,000 HOURS (OR AS REQUIRED BY APPLICATION) AND MAJOR KIT RECOMMENDED AT 12,000 HOURS (OR AS REQUIRED BY APPLICATION)

MODEL	MINOR SERVICE KIT (1-RING KIT & 1-VALVE KIT)	PISTON & ROD ASSY	MAJOR SERVICE KIT (1-MINOR SERVICE KIT & 1-P&R ASSY)
LGH-305, TA-3051, TA-4101-DC, GH-3V2B	C85493-P	C87048-P	C87865-P
TA-5102, LGH-310, TA-3101, TA-3101-DC, GH-510B, LGH-1V, TA-1V1	C85493-P	C87050-P	C87876-P
TA-6052, TA-4051, GH-605B, GH-617B, TA-4V2, GH-5VB	C85493-P	C87053-P	C87869-P
TA-4052GH-3101B GH-405B, GH-417B	C85493-P	C87075-P	C87864-P
TA-3052, TA-4102, TA-2051, GH-3052B, GH-410B	C85493-P	C87076-P	C87862-P
TA-5052, TA-6102, TA-4101, GH-505B GH-610B, GH-517B, TA-3V2, LGH-2V, GH-3V1B, GH-4VB	C85493-P	C87226-P	C87866-P
LGH-210, LGH-106, TA-2101, TA-1061, TA-2101-DC	C85493-P	C87833-P	C87861-P
TA-7102	C85498-P	C91363-P	C85499-P
GH-417B (1ST STAGE) GH-417B (2ND STAGE)	C85493-P C85475-P	C87075-P C87079-P	C87864-P C85476-P
GH-517B (1ST STAGE GH-517B (2ND STAGE	C85493-P C85475-P	C87226-P C87234-P	C87866-P C85477-P
GH-617B (1ST STAGE GH-617B (2ND STAGE	C85493-P C85475-P	C87053-P S70900-P	C87869-P C85478-P

WARRANTY

A. Gardner Denver Thomas, Inc.-Monroe products, when properly installed and under normal conditions or use, are warranted by Gardner Denver Thomas, Inc.-Monroe to be free from defects in material and workmanship at time of shipment. Warranty claims regarding products must be asserted within 18 months (the "warranty period") from date of manufacture encoded on the product (unless otherwise agreed in writing or specified in a Gardner Denver Thomas, Inc.-Monroe Quotation) or 12 months from the OEM Product manufacture, whichever occurs first..

The customer's exclusive remedy against Gardner Denver Thomas, Inc.-Monroe, for a warranty claim or otherwise, shall be limited to repair or replacement of the subject product if it is shown to have been defective in material and workmanship at the time of shipment, and then only if the claim is asserted during the warranty period. Gardner Denver Thomas, Inc.-Monroe's maximum liability under this exclusive remedy shall never exceed the cost of the subject product and Gardner Denver Thomas, Inc.-Monroe reserves the right, at its outside sole discretion, to refund the purchase price in lieu of repair or replacement, except for such warranty and exclusive remedy as stated (and except for the express warranty of title).

GARDNER DENVER THOMAS, INC.-MONROE DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO ITS PRODUCTS, WHETHER EXPRESS OR IMPLIED, AND SPECIFICALLY DISCLAIMS UNDER THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL GARDNER DENVER THOMAS, INC.-MONROE BE LIABLE TO CUSTOMER OR THIRD PARTIES IN WARRANTY, CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, FOR ANY DAMAGES, WHETHER INCIDENTAL OR CONSEQUENTIAL, WHICH ARE ALLEGED TO HAVE BEEN CAUSED BY ONE OR MORE OF OUR PRODUCTS, BEYOND THE COST TO THE CUSTOMER OF THE SUBJECT PRODUCT OR PRODUCTS, THE EXCLUSIVE REMEDY FOR ANY CLAIM HAVING BEEN LIMITED TO REPAIR OR REPLACEMENT AS AFORESAID.

B. Because Gardner Denver Thomas, Inc.-Monroe's warranties and remedies extend to our direct customers, the customer is not authorized to extend warranties on our behalf to anyone. Unauthorized extensions of warranties by the customer shall remain customer's responsibility.

C. CUSTOMER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF OUR PRODUCTS FOR CUSTOMERS USE OR RESALE, OR FOR INCORPORATING THEM INTO OBJECTS OR FOR APPLICATIONS WHICH CUSTOMER DESIGNS, ASSEMBLES, CONSTRUCTS OR MANUFACTURES.

D. RETURNS POLICY

All sales are final. However, in some cases returns may be allowed. No products will be accepted for return WITHOUT OUR WRITTEN APPROVAL AND UNLESS ACCOMPANIED BY A PROPERLY AUTHORIZED "Service Repair Order" (SRO) initiated by Gardner Denver Thomas, Inc.-Monroe. Return freight must be PREPAID. For non-special or non-custom products accepted for return, transportation (if not prepaid) and a minimum restocking charge of 15% of the invoice value will be charged. Returned goods should be labeled as follows:

Example: SRO 0000
Gardner Denver Thomas, Inc.-Monroe
4601 Central Avenue
Monroe, LA 71203

Special or Custom made products, including units that are modified from standard units, cannot be returned for credit.

Service parts cannot be returned for credit.

THOMAS
A Gardner Denver Product

©2006
Printed in USA