

GRAYMILLS

**HANDI-KLEEN® PARTS
CLEANERS — SOLVENT
Model PL36FB**

**Operations and Maintenance
Instructions**

SAFETY WARNINGS

You will find various types of safety information on the following pages and on the labels attached to Graymills equipment. The following Safety Statements explain their meaning:

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid personal injury or death.
! DANGER	DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.
! WARNING	WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
! CAUTION	CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
CAUTION	CAUTION, without the safety alert symbol, is used to address practices not related to personal injury.



Never work with equipment you feel may be unsafe. Contact your Supervisor immediately if you feel a piece of equipment is in an unsafe condition.

WARNING

Do NOT install near open flames or heat. Do NOT smoke near parts cleaner.

Be sure to follow label instructions provided with any fluid used in this unit. Use only fluids with a flash point of 104°F or higher. Graymills recommends Super or Regular Agitene® (Flashpoint approx. 105°F). Do NOT use gasoline, alcohol, carburetor cleaners, metal strippers or chlorinated solvents. Use of such unauthorized materials can cause a health and safety hazard which might result in serious personal injury or death. If you have any questions regarding the correct fluids to use in this unit, call Graymills at (773) 248-6825 and ask for Customer Service.

Unit is intended for use with solvent cleaning fluids only. The use of aqueous-based cleaning fluids can damage the finish and cause rusting.

Do NOT contaminate cleaning compounds with any flammable materials (not less than 104°F flash point), such as gasoline, alcohol, etc.

Drain parts to be cleaned of any flammable material before placing inside cleaning tank. Even small quantities can create a dangerous fire hazard.

CAUTION

If any cleaning solutions are splashed on clothing, remove wet clothing promptly and thoroughly wash body areas that have been in contact with the solution. Do NOT permit saturated clothing to remain in contact with skin.

Cleaning solutions may irritate skin and eyes. If splashed in eyes, flush thoroughly with water. Consult Material Safety Data Sheet (MSDS) and a physician. Always wear appropriate safety items such as gloves, apron, safety glasses or goggles.

WARNING

Before performing any maintenance on this unit, be sure to disconnect electric power.

Unit must be properly grounded to prevent electric shock hazard. Connect only to three prong outlet. Should cord become cracked, frayed or damaged in any way, it should be repaired immediately by a qualified electrician. Never use an extension cord.

Since operator safety at all times is a priority, we strongly recommend that, whether or not required by local code, this equipment be connected only into a power supply equipped with a "Ground Fault Interrupter" (GFI). All electrical connections should conform to national/local codes and be made by qualified personnel.

Do NOT load with parts over recommended maximum weight.

CAUTION

Unit is equipped with a fusible safety link cover mechanism designed to support the open cover at a slightly forward angle. In the event of a fire, the fusible link will melt at 165°F, permitting the cover to shut, cutting off oxygen supply to the fire.

Never leave the unit unattended with parts in the tank which would prevent the cover from closing completely in the event of a fire. Always make sure that the cover remains in its correct, slightly tilted forward position when open. Do NOT tamper with or remove the fusible safety link. If the safety link breaks or is lost, do NOT use the unit. Replace the safety link immediately. Keep the cover closed when the unit is not being used.

After extended use, the gas spring could begin to lose some of its holding ability. If you begin to notice the cover not holding in the open position, replace gas spring immediately to prevent inadvertent dropping of cover and potential injury.

Inspect pump and all electrical cords and plugs each time unit is cleaned. Do NOT use if any wear or damage is noticed until impaired components are repaired or replaced.

Fill tank to recommended operating capacity range before plugging in power cord (See SPECIFICATIONS Section).

INTRODUCTION

The Handi-Kleen parts cleaner is an economical and effective parts cleaner. Parts are scrubbed by a hand-held brush (see ACCESSORIES section) under a flex hose, resting on a removable metal shelf above fluid level or may be soaked in solvent below the shelf. Cleaning fluid is circulated through a foam filter to trap finer particles that make it beyond the sludge collector.

SPECIFICATIONS

Depending on the model, the Handi-Kleen parts cleaner operates at 115V, 60 Hz, 1 Ph. Fluid capacity minimums and maximums for the PL36 are 2"-11" respectively.

The Handi-Kleen is designed to be used with combustible (flash point over 104°F) petroleum based cleaning fluids such as Graymills Regular Agitene® and Super Agitene®. Super Agitene has a mild, fresh odor and is far superior in cleaning ability than normal safety solvents. Super Agitene also contains "HandEase," a lanolin formulation that helps prevent skin irritation, plus seven other ingredients that make it a unique cleaning fluid that cleans faster, more easily and lasts longer than other cleaning fluids. Super Agitene also leaves a light rust retarding film. Regular Agitene is a fast-drying, film-free cleaner which contains Tergene, a detergent additive for better cleaning efficiency. Regular Agitene is especially recommended for cleaning electrical parts since it will not harm varnish and dries film free.

INSTALLATION AND OPERATION

Site Preparation

Before installing the Handi-Kleen, careful consideration should be given to the place of operation. Place unit on a smooth, level surface.



The work area should be well ventilated.

Provide adequate lighting in the work area to allow observation of the cleaning process and the floor area around the machine.

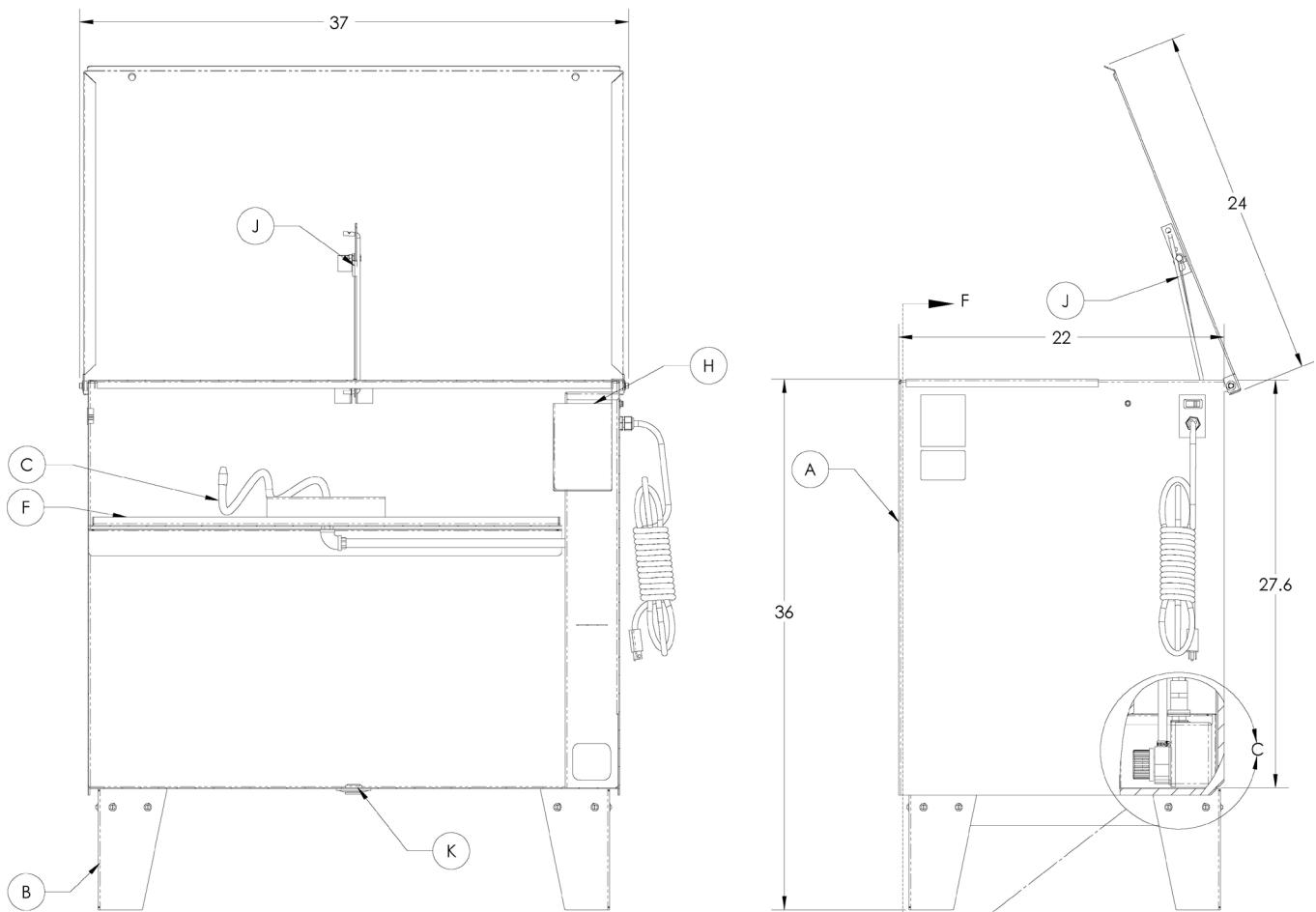
Be sure to allow adequate room to bring work to and from the machine. Provide sufficient clearance around the machine for fluid changeovers and servicing.

ASSEMBLY

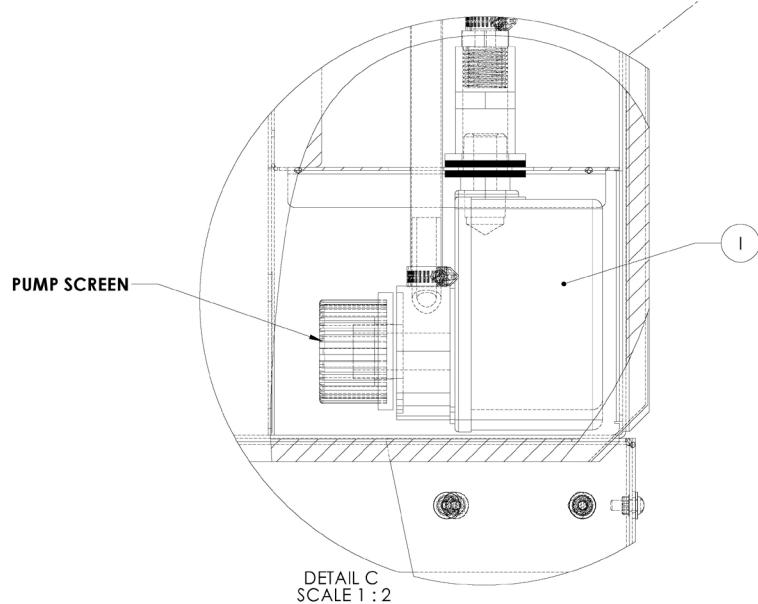
After removing the Handi-Kleen from its shipping carton, place tank (A, see fig. on next page) upside down and assemble legs (B) on the **outside** of tank brackets (if placed on inside of brackets, holes will not align). The rough side of the lock nuts should screw toward the metal. After all machine screws and lock nuts are in place, tighten securely. Turn unit over. Install the Handi-Kleen in a convenient location close to electrical outlet, away from open flame or sparks. Check and tighten all fittings before filling with solvent. Liquid level should remain under the high level line. Do NOT overfill. Keep cover closed when not in use to reduce evaporation of cleaning fluid. The reflective white cover aids visibility when open.

Handi-Kleen Pumps

The pumping unit (I) is a valuable aid in parts cleaning. It is particularly useful for flushing away softened grease and grime as you brush the parts. The pumps designed for the Handi-Kleen models operate at low pressure to aid against splash. These pumps are made of high strength, reinforced thermoplastic. The wire mesh screen which protects the pump intake may need periodic cleaning.



SECTION F-F
SCALE 1 : 7



MAINTENANCE

Fusible Link

A fusible safety link (J) is located on the inside cover of the Handi-Kleen tank. This link is designed to melt at 165°F in case of fire. This eliminates the upper support and allows the cover, which is held in a slightly forward position (be sure this slightly forward position is maintained) to drop shut. Do NOT allow any parts to remain in the parts washer that would prevent the lid from closing. The fusible link should be replaced any time it is damaged and no longer holds lid open.

Cleaning the tank

To clean the tank, remove solvent by opening the drain (K) located in the center of the tank bottom. You can also remove the flexible hose (C) from the "L" support bracket, aim it over the tank sides into a large bucket and remove used solvent using the pump. Wipe the tank clean when empty. Rinse the part basket and refill the tank. The cleaning process normally takes 10 - 15 minutes. Complete instructions are located on the lid of the Handi-Kleen.

CAUTION

Always dispose of used cleaning fluid properly. Refer to the cleaning chemical manufacturer's package label for instructions.

Cleaning the Pump

Decreased solvent flow from the nozzle could mean not enough solvent is getting to the pump (I), indicating a sludge build-up at the pump intake area. Lift pump out of compartment and check bottom of pump compartment for sludge. If it is necessary to clean the pump interior, remove pump housing by removing two (2) sheet metal screws holding the housing to tank. The pump has a secondary screen that may need additional cleaning.

ACCESSORIES

(See Catalog GM100)

Baskets

There are several parts baskets available:

- L-3 Permits flushing of small parts while keeping them organized. It measures 10" in diameter.
- L-7 Ideal for small parts, the versatile basket is 8" L x 4" W x 6" H and hooks over the edge of any Handi-Kleen unit or stands on legs.
- L-8 Constructed of expanded metal on sides and bottom to accommodate big parts for thorough soaking, the basket measures 13" L x 12" W x 5" H.

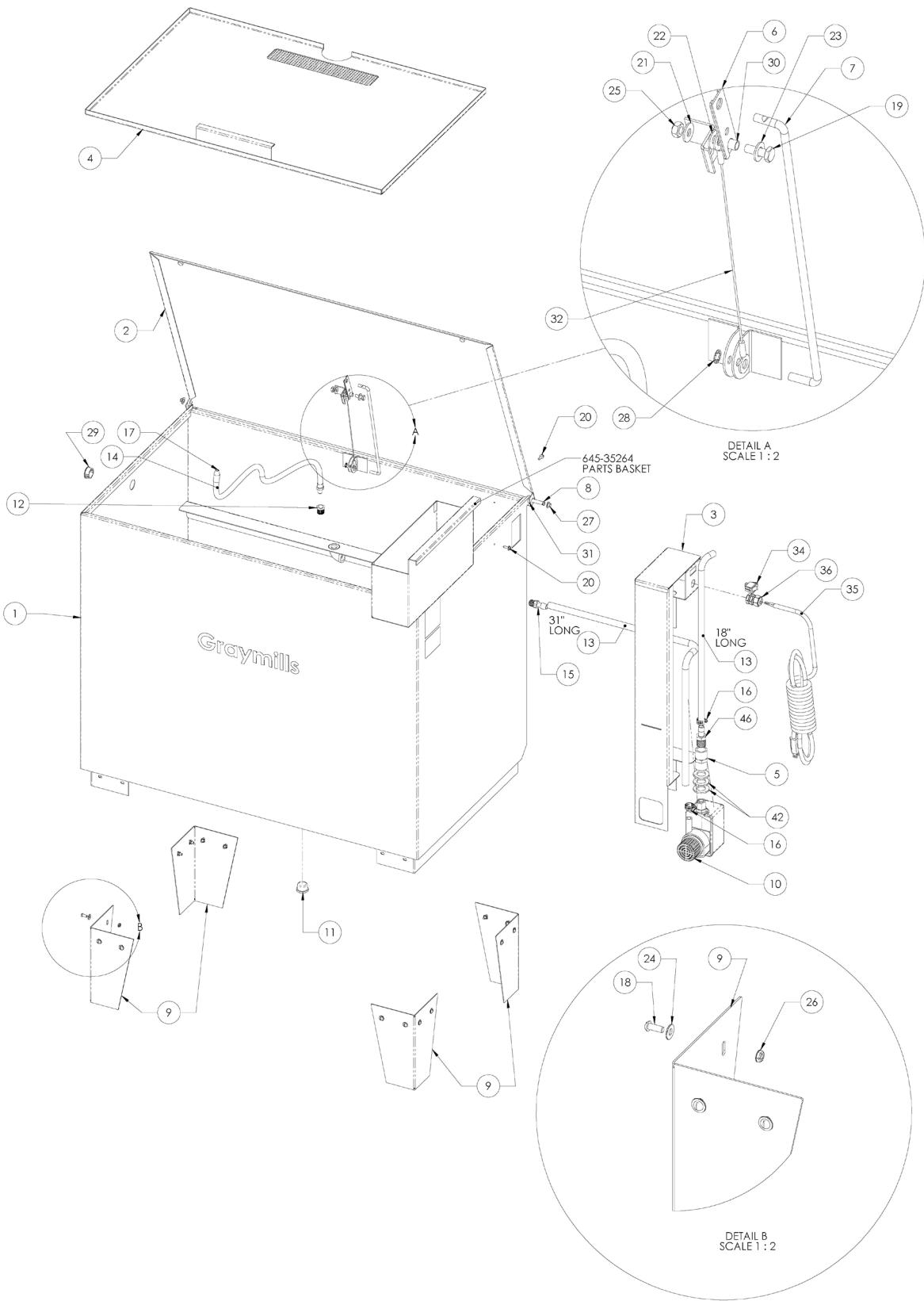
Cleaning Brushes

Graymills parts cleaning brushes are specifically designed for tough parts cleaning work. The crimped nylon fibers outwear ordinary brushes and won't ball up, flare out, or get flabby.

- 3B-G Standard Brush – with 2-1/2" polypropylene bristles.
- 5D Double Brush – 12 long, with heavy 2-1/2" bristles at one end and a fine 1-1/2" brush at the other for crevices, holes, etc.
- 6A Flow-Thru Brush – flushes parts as they are cleaned. Solvent flows through the core of the handle. Manufactured with a 2' connecting hose, 2-1/2" nylon bristles, and a rubber connector which slips over the nozzle of the flexible metal hose.

Drain Shelf

- L-61 The Handi-Kleen parts cleaner also has a convenient 15-3/4" x 14-1/2" drain shelf which quickly hooks on the left side of the cleaning tank. Fluid draining off clean parts runs directly back into the tank.



ITEM NO.	PART NO.	DESCRIPTION
1	430-41050-TR	TANK ASSEMBLY
2	431-40544-TW	COVER
3	431-41054	PUMP COVER
4	432-40551	STANDARD DRAIN SHELF
5	724-92392	NYLON 1/2" COUPLING
6	451-23482	FUSE LINK ASSEMBLY
7	567-26793-65	LINK ROD SUPPORT
8	567-37197-81	HINGE BAR
9	644-41056-TR	LEGS
10	390-09663	PUMP 1/40HP-115V
11	724-05658	DRAIN PLUG W/GASKET
12	724-00661-81	RED BUSH HEX
13	729-04379	TUBING
14	769-05960	FLEX WRAP
15	730-04938	MALE INSERT 3/8-1/2
16	733-04696-81	HOSE CLAMP
17	728-20552	METAL FLEX HOSE
18	751-00582-12	MACHINE SCREW 10-32
19	752-02970-12	CAP SCREW 1/4-20
20	753-01119-12	SHEET MEAT SCREW 10-16
21	754-00816-12	LOCKWASHER SPLIT
22	754-00601-12	FLATWASHER 1/4"
23	754-00777-81	FLATWASHER STAINLESS 5/16"
24	754-02712-12	SMALL FLATWASHER #10
25	755-00594-12	HEX NUT 1/4-20
26	755-02579-12	KEPS NUT 10-32
27	755-90109-11	PUSH CAP NUT
28	756-07128	RETAINING RING
29	757-04524	HOLE CLOSER
30	760-23677	SLEEVE
31	760-90294-79	SPACER TUBE
32	765-26809	CABLE ASSEMBLY
33	769-05830	RUBBER BUMPER
34	770-08112	SWITCH 125-250VAC
35	777-03161	CORD & PLUG 115V 8FEET
36	774-04903	STRAIN RELIEF
37	754-04837-81	FLAT WASHER 7/8"
38	730-04716	MALE INSERT 1/2-1/2

WARRANTY INFORMATION

Graymills Corporation warrants that the equipment manufactured and delivered, when properly installed and maintained, shall be free from defects in workmanship and will function as quoted in the published specification. **Graymills** does not warrant process performance, nor assume any liability for equipment selection, adaptation, or installation.

Warranty does not apply to damages or defects caused by shipping, operator carelessness, misuse, improper application or installation, abnormal use, use of add-on-parts or equipment which damages or impairs the proper function of the unit, and modifications made to the unit. Warranty does not apply to expendable parts needing replacement periodically due to normal wear and tear.

A new Warranty period shall not be established for repaired or replaced materials or products. Such items shall remain under Warranty for only the remainder of the Warranty period of the original material or product.

THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESSED, IMPLIED OR STATUTORY. **GRAYMILLS CORPORATION** MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESTATED OBLIGATION ARE HEREBY DISCLAIMED BY **GRAYMILLS CORPORATION** AND EXCLUDED FROM THIS SALE. **Graymills** warranty obligations and Buyer remedies (except to title), are solely and exclusively stated herein. In no case will **Graymills** be liable for consequential damages, loss of production, or any other loss incurred due to interruption of service.

Graymills' obligation under this Warranty shall be limited to:

1. Repairing or replacing (at **Graymills** sole discretion) any non-conforming or defective component within one year from the date of shipment from **Graymills**.
2. Repairing or replacing (at **Graymills** sole discretion), components supplied by, but not manufactured by **Graymills**, to the extent of the warranty given by the original manufacturer.
3. This warranty does not cover rusting of a mild-steel parts cleaner used with aqueous (water-based) materials.

Buyer must give **Graymills** prompt notice of any defect or failure.

If you believe you have a Warranty claim, contact **Graymills** at (773) 248-6825. Any return material must have an RMA number on the outside of the package and shipping prepaid or shipment will be refused. **Graymills** will promptly examine the material and determine if it is defective and within the Warranty period.