Premium Return Roll Guard
GUARDIAN 3™
U.S. Patent Number 6,318,545 B1

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DOUGLAS
CONVEYING INNOVATION

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IMPORTANT: Never operate, adjust, or install equipment on a moving conveyor. Always follow lock out and tag out procedures when working on conveyor systems.

INSTALLATION, OPERATION, & MAINTENANCE MANUAL

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IMPORTANT:

Designed to be installed with a ¼" maximum gap between the guard and the belt. ALWAYS FOLLOW OSHA, STATE, AND OWNER REQUIRED SAFETY GUIDELINES / REGULATIONS DURING THE INSTALLATION OR OPERATION OF A CONVEYOR SYSTEM.

Douglas Manufacturing Co., Inc. strongly recommends that any safety program be supplemented by the use of ASME B20.1 2009 that refers to conveyor systems Never operate, adjust, or install equipment on a moving conveyor.

Always follow lock out and tag out procedures when working on conveyor systems. Personnel who work on or around conveyor systems must be safety trained and familiar with conveyor systems. Failure to follow the recommendations in this manual may result in serious injury or death. No idler guard can protect against potential danger in all situations or against all hazards.

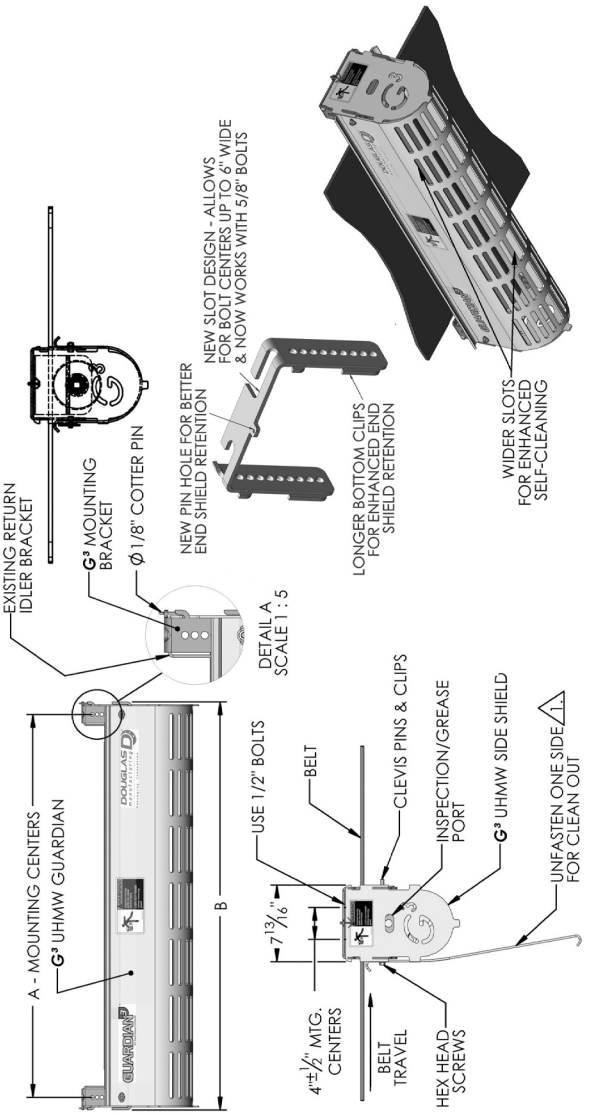
The Guardian³ is designed to help minimize the potential for danger but cannot guarantee protection in all situations or applications. If you have any questions or need assistance please contact us at (205) 884-1200 or FAX (205) 884-1206.

1. Review Parts

The following components are provided in each Guardian³ Kit. Please make sure you have all the parts required for installation.

Item No.	Qty.	Part No.	Description	Material
1	1	RRG-**UC3	Guardian Molded Body	Yellow 1/8" Thick UHMW
2	2	RRG-S3B	Guardian Mounting Bracket	Hvy. Gauge Steel
3	2	RRG-U3S	Guardian Side Shield	Yellow 1/8" Thick UHMW
4	4	RRG-TBS	Hex Hd Bolt 5/16"-18UNC x 1" Lg.	Zinc Plated Steel
5	4	RRG-TBS	Flat Washer, 5/16"	Zinc Plated Steel
6	4	RRG-TBS	Hex Lock Nut, 5/16"-18UNC	Zinc Plated Steel
7	2	RRG-TBS	Adjustable Clevis Pin 3/8" Dia. x 1" Lg.	Zinc Plated Steel
8	4	RRG-TBS	Hairpin Safety Clip, 1/8" Dia. Wire	Zinc Plated Steel
9	2	RRG-TBS	Cotter Pin, 1/8" Dia. x 1-1/2" Lg.	Zinc Plated Steel

** DENOTES BELT WIDTH
Items 7 and 8 are optional - use for easy removal and clean-out.

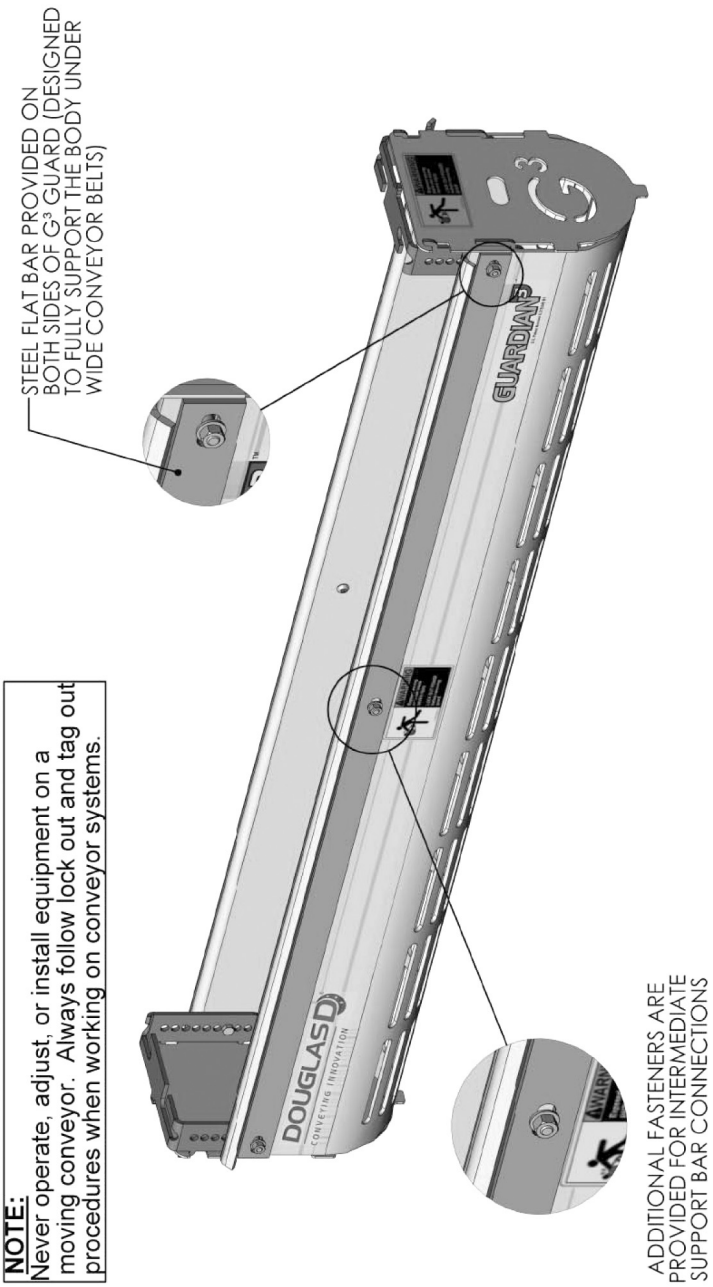


Reference Guide

Model No.	Belt Width	Wt.	A	B	Mounting Bolt Dia.
RRG-18U3	18	5.6	27	29 9/16	1/2
RRG-24U3	24	5.8	33	35 9/16	1/2
RRG-30U3	30	6.0	39	41 9/16	1/2
RRG-36U3	36	6.5	45	47 9/16	1/2
RRG-42U3	42	6.8	51	53 9/16	1/2
RRG-48U3	48	7.3	57	59 9/16	1/2
RRG-54U3	54	7.6	63	65 9/16	1/2
RRG-60U3	60	8.1	69	71 9/16	1/2

5. Optional Reinforcing of 54” and 60” Guardians

G³ Guardians for Belt Widths 54” and 60” are now provided with Support Rails as shown below. Ensure that each Rail is bolted to the UHMW body as required.



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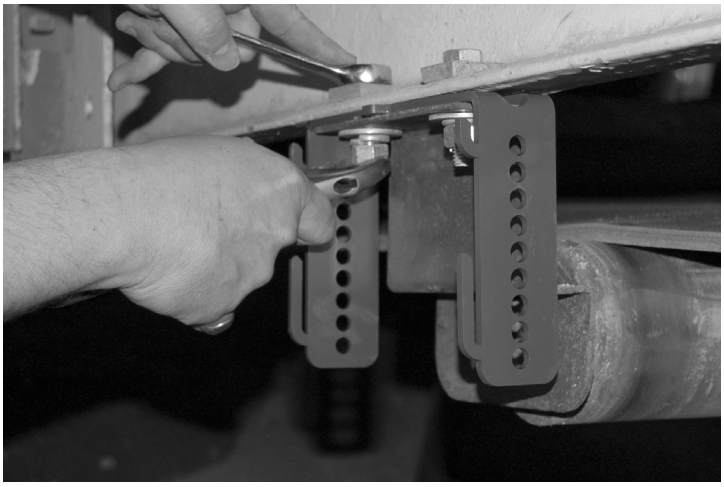
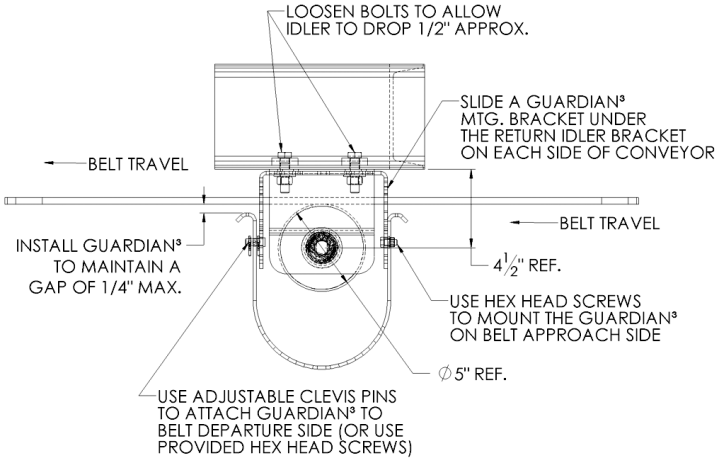
2. Install the Guardian³



The mounting brackets have slotted holes that prevent the necessity of removing the return idler bolts. Once the bolts are loosened as indicated above, slide the G³ bracket into the gap between the return idler bracket and conveyor frame. Tighten the bolts securely. Note the direction of belt travel in the figure below. Attach the Guardian³ UHMW body to the approach side of the bracket first. Maintain a ¼” maximum gap between the belt and upper lip of the G³ body. Use the supplied hex head fasteners & tighten securely. Adjustable clevis pins and hairpin cotter pins are optionally provided for fastening the other side. (For bi-directional belt conveyors, use bolts as required by your local, state, or federal safety regulator’s requirements.)

CAUTION: Install the mounting brackets one at a time. Doing so will insure that the idler is secure and will not drop.



3. Install Side Shields

The 1/8" thick yellow UHMW Side Shields are designed to easily install over the special "hooks" on the Guardian³ Mounting Bracket. See the figures below as an example. The Side Shields are retained firmly to prevent accidental loss from normal use and conveyor vibration.

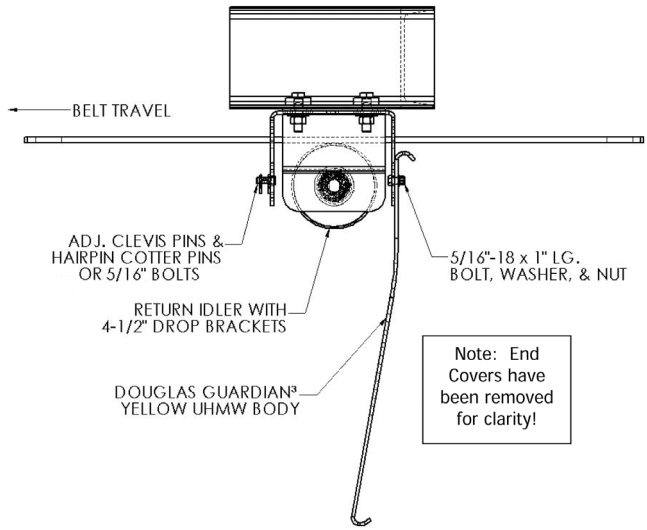
Supplied in the fastener kit are two straight cotter pins. These can be used optionally to positively lock the Side Shield in place as shown below.

4. Maintenance

Always follow lock out and tag out procedures when working on conveyor systems. Personnel who work on or around conveyor systems must be safety trained to do so.

Maintenance is a snap with the Guardian³ Return Roll Guard System. To clean out residual debris or to replace a fallen return roll simply remove the hairpin cotter pins and swing the Guardian³ body away and down.

Inspect the Guardian³ assembly carefully and look for damaged or deteriorated parts. These should be replaced as soon as possible. Failure to do so may result in serious injury or death.



The Douglas Guardian³ Side Shields are designed to allow visual inspection of the return roll assembly without removing any parts! The Side Shield is made from 100% flexible UHMW and can be left as shown or tucked in at the bottom edge. A tab is provided on the bottom of each Side Shield and can be adjusted to engage with the bottom slot on the

Guardian³ UHMW Body for retention, if desired. The Guardian³ Return Roll Guard system is designed to prevent appendages from being caught in the idler/belt contact point or any other catch points and still allow most material and debris to pass through. The system should be inspected regularly for material build-up that would hinder idler performance.