

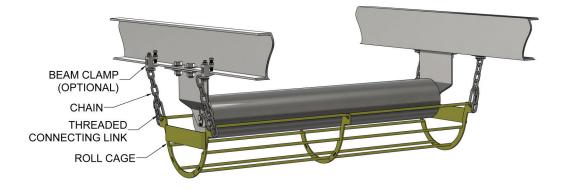
# OPERATION & MAINTENANCE RETURN ROLL CAGE

## **IMPORTANT - SAFETY INSTRUCTIONS**

The user of the conveyor system is responsible to be in compliance with safety standards, including OSHA and other Federal, State, and local codes or regulations. Placement of guards and other safety equipment in accordance with safety standards is dependent upon the design of the system and the use of the system. A safety study should be made of the conveyor system and application. Based on the study guards should be installed where appropriate.

Safety Standards of Conveyors and Related Equipment ANSI B20.1 is a guide to the safe construction, installation, operation and maintenance of conveyors and related equipment, including return roll cages.

NOTE: The Return Roll Cage is a device to catch dislodged rolls, it is NOT intended to be a guard to protect personnel from the rotating roll or any pinch points at roll-belt interface.



### **RETURN ROLL CAGE - OVERVIEW**

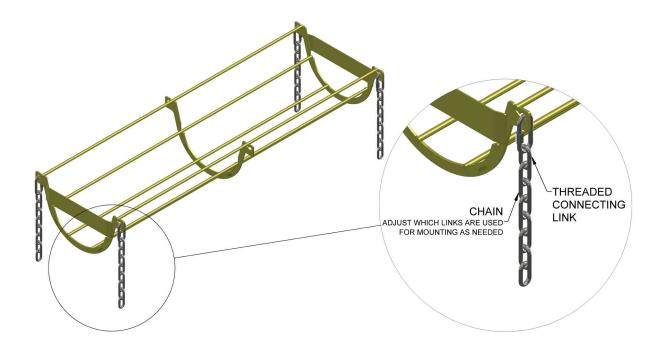
#### FEATURES AND BENEFITS

Safety concerns for mining operations have come to the forefront. PPI's Return Roll Cage provides protection to property and personnel from suspended idler rolls. As belts misalign, they may cut drop brackets of suspended return rolls causing the roll to fall. Installing a Return Roll Cage alleviates that risk by catching any dislodged roll.

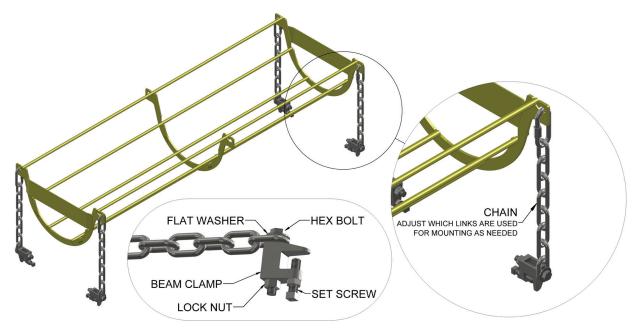
- Reduces the hazard of rolls falling and causing damage or fatalities
- Easy installation
- Low-maintenance
- Large openings eliminate material build up
- Lightweight design
- Available in 12" and 24"
- Optional beam clamps

#### **INSTALLATION INSTRUCTIONS**

STEP 1 - Attach the provided chains and threaded connecting links (4 each) to the roll cage.



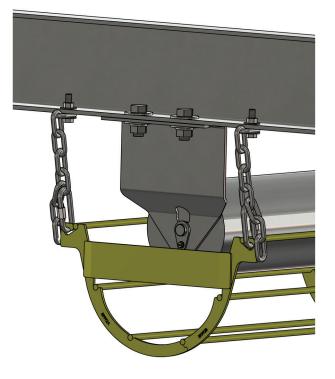
STEP 2 – PPI recommends using bolts to attach the chains to the conveyor structure for added security. Beam clamps are available if requested. If beam clamps are to be used, attach them to each chain. The location to connect them on the chain depends on roll cage mounting location and drop height of the return roll brackets. When mounted, the top of the roll cage should be approximately level with the center of the return roll.



STEP 3 – Before installation onto the conveyor, observe from a safe distance one full cycle of belt travel. Locate and repair any loose edges, splices, or other damage that might interfere with the operation of the roll cage.

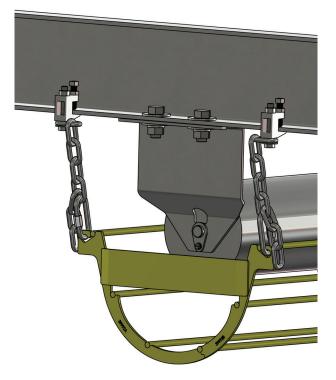
#### **INSTALLATION INSTRUCTIONS**

STEP 5 – Mount the roll cage to the conveyor structure. Adjust the chains so that the top of the roll cage is approximately level with the center of the return roll. Center the roll cage horizontally around the return roll along the length and width of the belt.



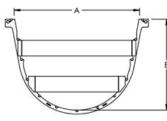
# Roll Cage Mounted with Bolts (Recommended)

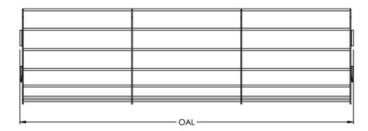
Roll Cage Mounted with Beam Clamps (Available Option)



#### MAINTENANCE

The roll cage and supporting hardware is to be inspected periodically for corrosion and for any loose hardware. Corroded product in danger of failing should be replaced. Loose hardware should be tightened. Periodically inspect for and clear out any debris buildup on the catcher.





#### ROLL CAGE ASSEMBLY

R	RETURN ROLL CAGE WITH CHAIN LINKS		RETURN ROLL CAGE WITH CHAIN LINKS AND BEAM CLAMPS			Dimensional Info				
Part Number	Description	Hardware Kit Part #	Part Number	Description	Hardware Kit Part #		OAL	A	В	Assembly Weight
RC18A	18-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC18A-BC	18-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC	ĺ	27.71	12	7.14	13
RC24A	24-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC24A-BC	24-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		33.71	12	7.14	15.1
RC30A	30-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC30A-BC	30-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		39.71	12	7.14	16.2
RC36A	36-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC36A-BC	36-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		45.71	12	7.14	17.3
RC36A RC42A RC48A	42-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC42A-BC	42-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		51.71	12	7.14	18.4
BY RC48A	48-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC48A-BC	48-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		57.71	12	7.14	20.5
RC54A BC60A	54-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC54A-BC	54-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		63.71	12	7.14	21.7
	60-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC60A-BC	60-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		69.71	12	7.14	22.8
RC66A	66-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC66A-BC	66-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		75.71	12	7.14	23.9
RC72A	72-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC72A-BC	72-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		81.71	12	7.14	26
RC78A	78-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC78A-BC	78-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		87.71	12	7.14	27.1
RC84A	84-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC84A-BC	84-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		93.71	12	7.14	28.2
RC90A	90-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC90A-BC	90-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		99.71	12	7.14	29.3
RC96A	96-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC96A-BC	96-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		105.71	12	7.14	31.5
RC18B	18-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC18B-BC	18-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		33.96	24	17.37	29
RC24B	24-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC24B-BC	24-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		39.96	24	17.37	33.3
RC30B	30-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC30B-BC	30-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		45.96	24	17.37	35.8
RC36B	36-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC36B-BC	36-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		51.96	24	17.37	38.2
.≺ RC42B	42-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC42B-BC	42-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		57.96	24	17.37	40.6
RC48B	48-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC48B-BC	48-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		63.96	24	17.37	44.9
RC42B   RC48B   RC54B   RC54B   RC60B   RC66B	54-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC54B-BC	54-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		69.96	24	17.37	47.4
RC60B	60-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC60B-BC	60-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		75.96	24	17.37	49.8
RC66B	66-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC66B-BC	66-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		81.96	24	17.37	52.2
RC72B	72-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC72B-BC	72-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		87.96	24	17.37	56.6
RC78B	78-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC78B-BC	78-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		93.96	24	17.37	59
RC84B	84-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC84B-BC	84-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		99.96	24	17.37	61.4
RC90B	90-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC90B-BC	90-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		105.96	24	17.37	63.8
RC96B	96-ROLL CAGE W/ CHAINS ONLY	RCHWKIT	RC96B-BC	96-ROLL CAGE ASSEMBLY W/CLAMP	RCHWKIT-BC		111.96	24	17.37	68.2

Hardware and chain will be packaged separately

Each basket comes with 4 pieces of chain that are 12" long and 4 threaded connecting links

#### **REPLACEMENT HARDWARE KITS**

ROLL CAGE HARDWARE KIT			
PART NUMBER COMPONENT (ALL ZINC PLATED)		QUANTITY	
	5/16" Threaded Connecting Link	4	
RCHWKIT	1/4" Grade 30 Chain, 11"-12" Long	4	

ROLL CAGE HARDWARE KIT WITH BEAM CLAMPS					
PART NUMBER	COMPONENT (ALL ZINC PLATED)	QUANTITY			
	5/16" Threaded Connecting Link	4			
	1/4" Grade 30 Chain, 11"-12" Long	4			
	3/8" Beam Clamp for 3/4" Max Flange	4			
RCHWKIT-BC	3/8-16 x 2 1/2 Hex Head Bolt, Fully Threaded	4			
	3/8-16 Conical Top Lock Nut	4	<b>ין ד</b>		
	3/8 Flat Washer	4			

BEAM CLAMP REPLACEMENT HARDWARE KIT					
PART NUMBER	COMPONENT (ALL ZINC PLATED)				
	3/8" Beam Clamp for 3/4" Max Flange	1			
BCRHWKIT	3/8-16 x 2 1/2 Hex Head Bolt, Fully Threaded	1			
BCRHWKII	3/8-16 Conical Top Lock Nut	1			
	3/8 Flat Washer	1	_		

