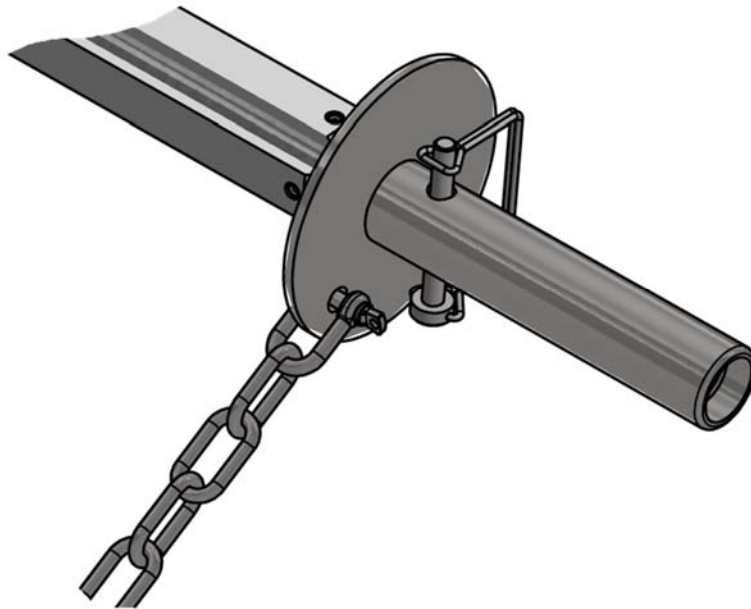


# Installation, Operation and Maintenance Manual



## Safety Mandrel

### Document Control

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# **1 General Information**

## **1.1 Overview**

The BBCP Safety Mandrel comprises a steel pole with nylon outer strips, a removable handle, a locking pin and a keeper chain and shackles. The mandrel telescopes inside the scraper pole and supports the leading end of the pole during installation, or the trailing end of the pole during removal.

The BBCP Safety Mandrel can be used on primary and secondary cleaners, and through the use of the removable handle, can be used in locations where access to one side of the belt cleaner is limited, by a conveyor drive for example.

## **1.2 Advantages**

Using the BBCP Safety Mandrel allows a belt cleaner to be removed in a way that:

- greatly reduces manual handling,
- eliminates hand pinch injuries,
- can remain in place without effecting operation of the belt cleaner,
- can be used in applications where one side of the belt cleaner is limited.

## **1.3 Safety**

During installation and maintenance of all belt cleaners, ensure all energy sources are isolated in accordance with the relevant site's procedures.

Ensure all works are conducted by qualified, competent personnel.

Ensure all personnel utilise appropriate personal protective equipment as required.

## **1.4 Assistance**

If assistance is required through any stage of the process: belt cleaner selection, design, drafting, installation and/or maintenance, Belle Banne Conveyor Products have personnel that are able to provide support.

## 2 Safety Mandrel Components

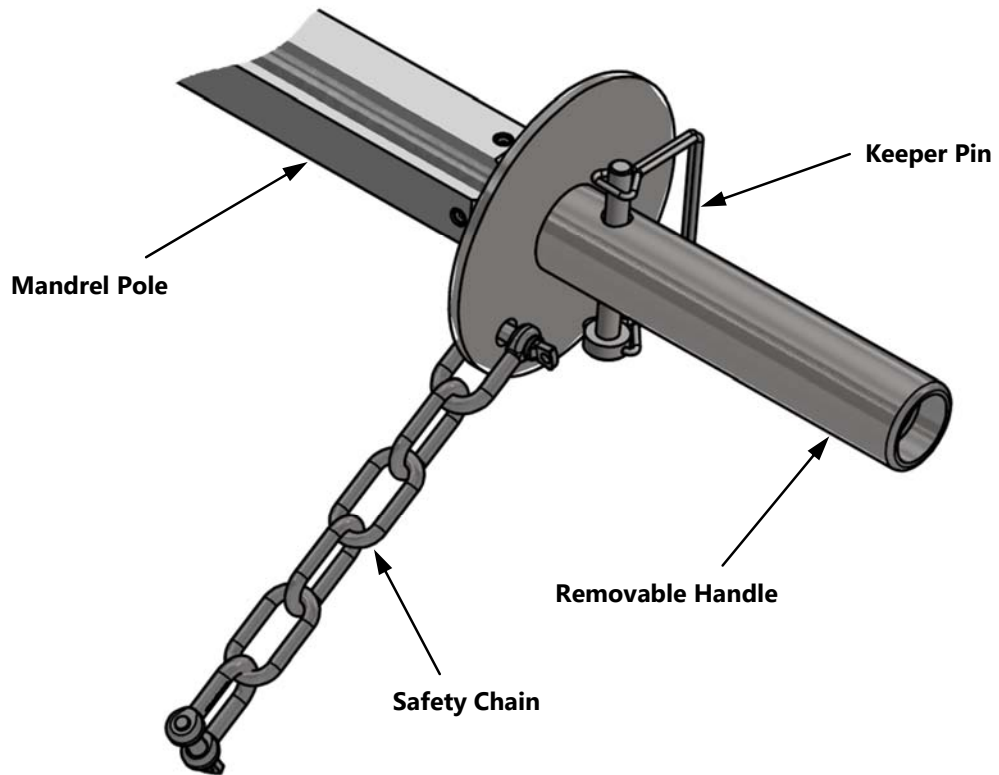


Figure 1

### 3 Procedure

#### 3.1 Belt Cleaner Installation

1. Once the belt cleaner side assemblies are installed, install the mandrel pole so it is resting on the mounting brackets, as shown in Figure 2. If space is limited on one side of the cleaner, install the pole from the other side, handle end first.

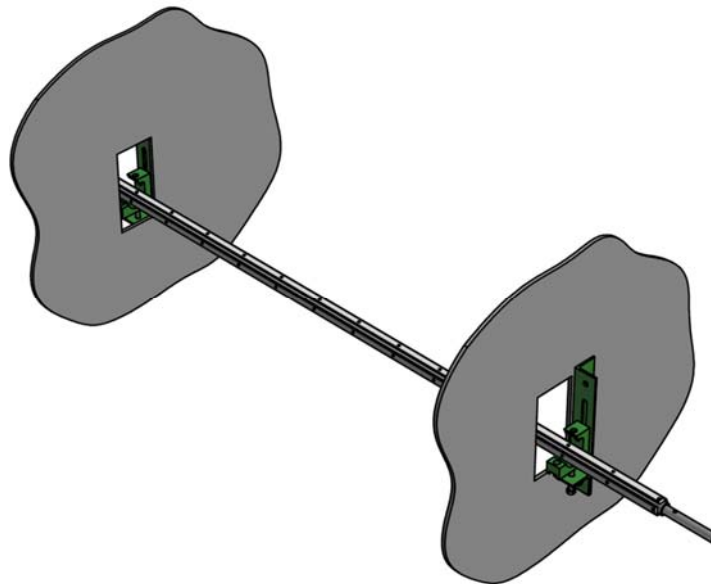


Figure 2

2. Install the removable handle and secure it with the keeper pin and the safety chain, as shown in Figure 3.

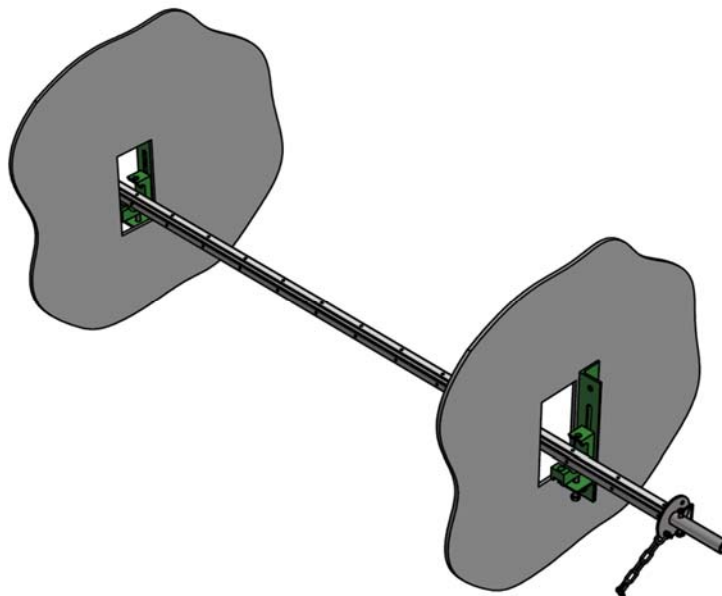
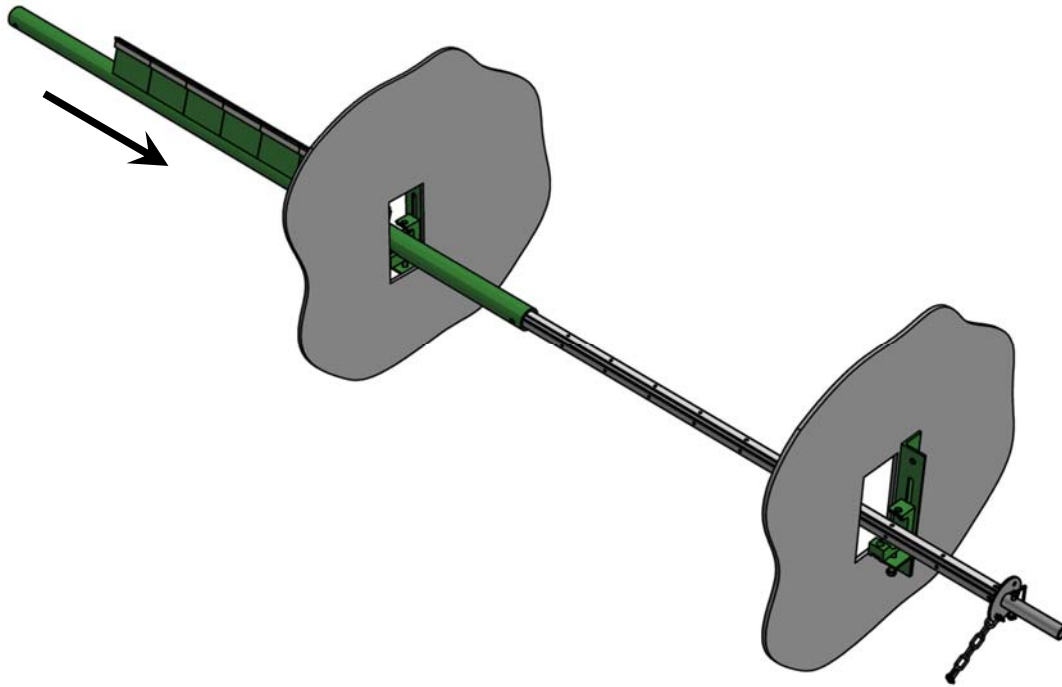


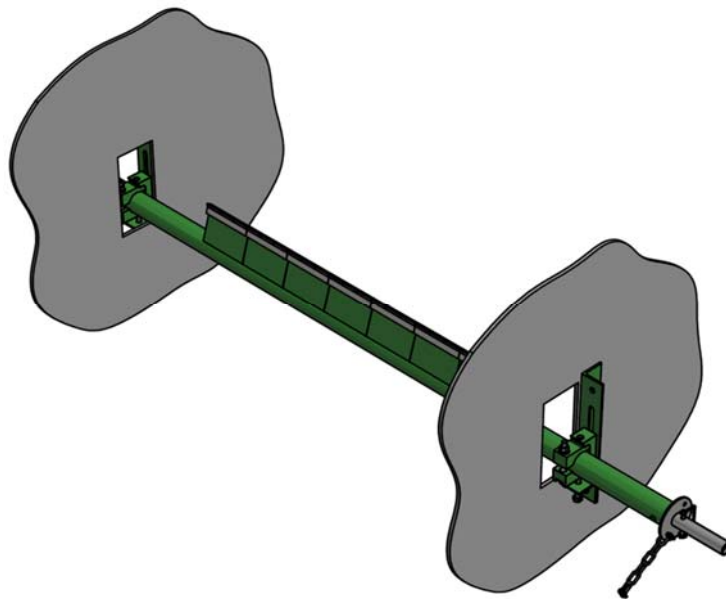
Figure 3

3. Place the end of the belt cleaner onto the end of the mandrel pole and commence pushing it into the chute. Another operator can hold the handle at the other end, or the safety chain can be used to restrain the pole.



**Figure 4**

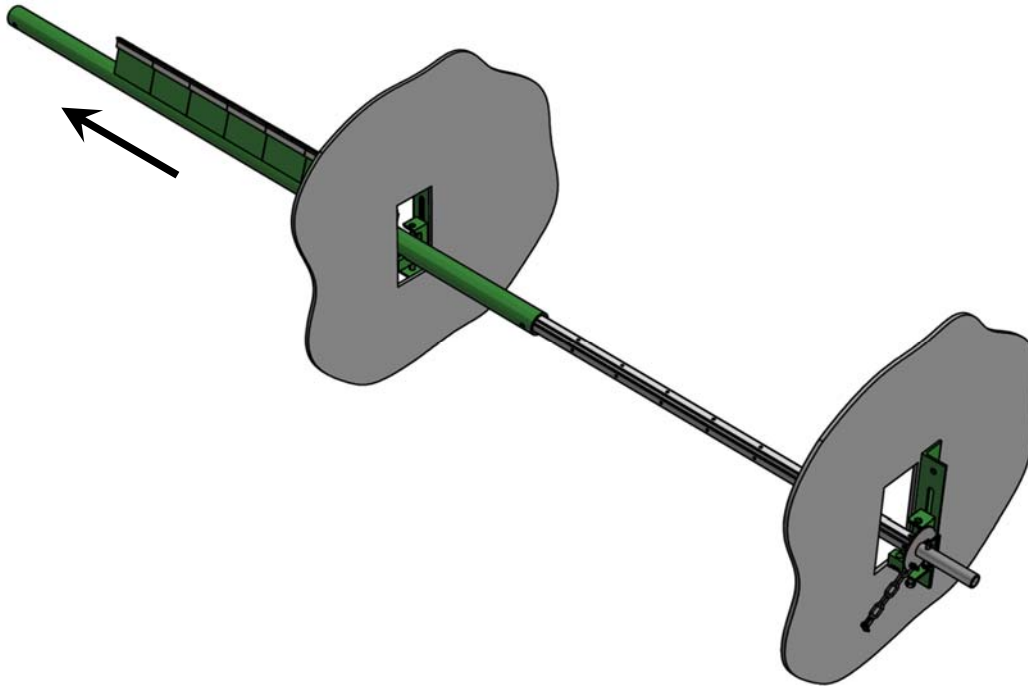
4. Once the belt cleaner has been positioned centrally and set up correctly, ensure the mandrel is secured by shackling the safety chain to a secure anchor. The cleaner is now ready for operation, as shown in Figure 5.



**Figure 5**

### 3.2 Belt Cleaner Removal

1. To remove the belt cleaner, loosen the necessary side assembly fasteners and commence pulling the belt cleaner out the side of the conveyor opposite the removable handle, as shown in Figure 6. The disc on the handle will move until it butts up against the mounting bracket or chute wall, ensuring the mandrel pole remains supported.



**Figure 6**

2. Continue pulling the belt cleaner out until it is free of the mandrel pole. The mandrel pole will remain supported, spanning the conveyor width.
3. When ready, the belt cleaner can be reinstated by following the steps in Section 3.1.