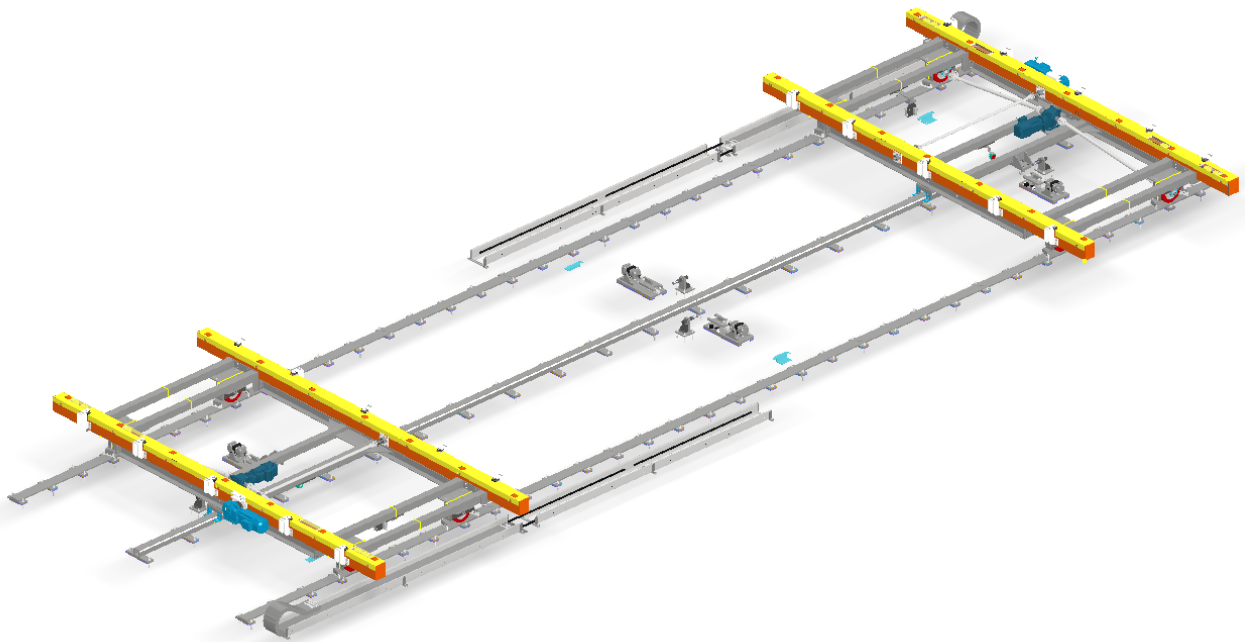


# Shuttle – Typical Components



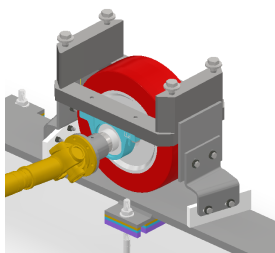
## Shuttle Overview

The function of the Shuttle is to move a skid laterally between two or more conveyor lines.

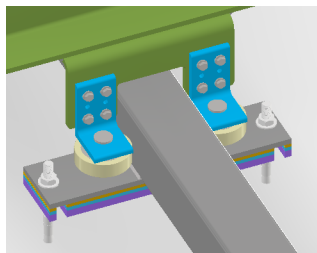
The Shuttle consists of two Tables: four wheel-assemblies that move the skid on a rail between conveyor lines. Two of the wheel assemblies are driven by a centrally mounted gearmotor and are actuated through cardan shafts. In line with each drive wheel assembly is an idle wheel assembly. The rails are fixed to the floor via adjustable feet.

In the center of both sides of the Shuttle Table frame there are pairs of mounted guide wheels. These wheels guide the whole shuttle in the cross direction alongside the rails. The bumpers at the end of the rails ensure that the shuttle, in the case of failure in control, cannot run off the tracks. Each table also has a pair of lock actuator assemblies to secure the shuttle when not in motion.

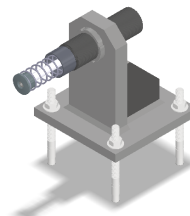
On top of the Shuttle Table there is a mounted Power Roll Bed. Not shown in the figures above and blow are trailing cables within a caterpillar track that provide power and communication to the shuttle and roll table gearmotors drive controllers.



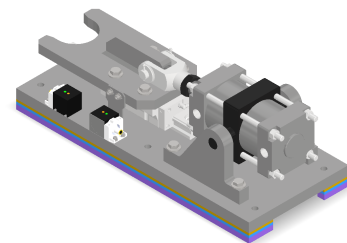
▲ Driven wheel



▲ Guide wheels

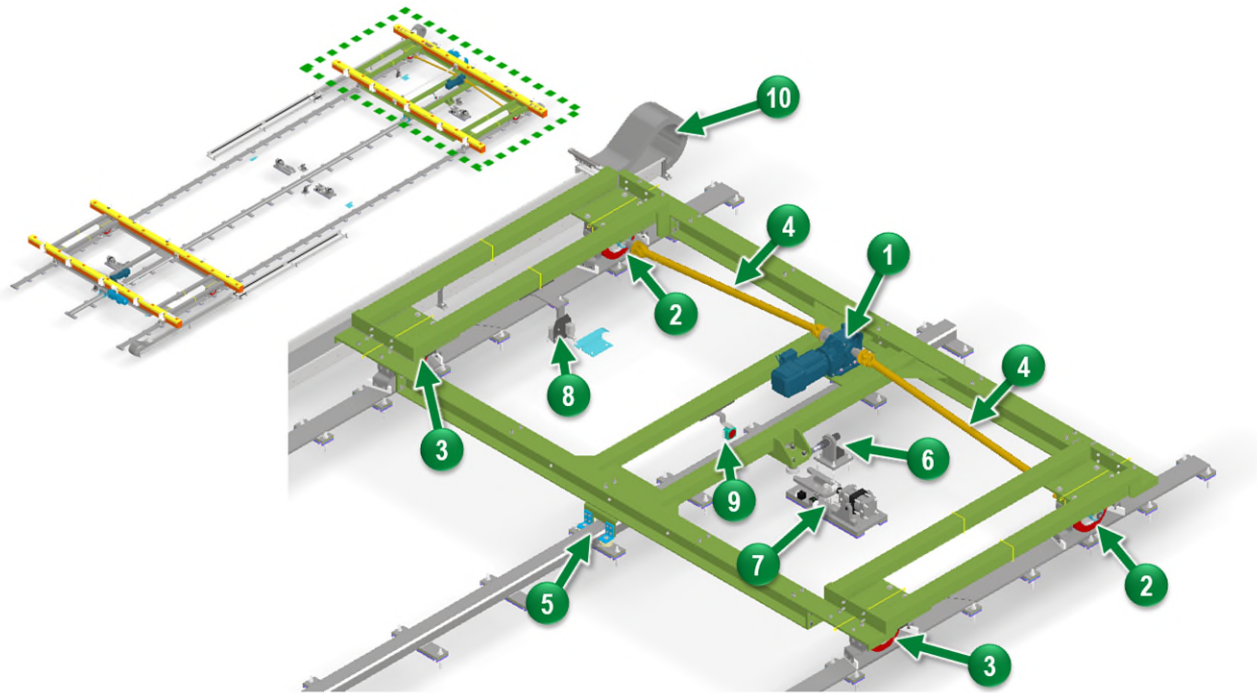


▲ Bumper



▲ Lock Actuator

## Shuttle Table Components



▲ Shuttle Table shown with PRB removed and color for emphasis.

1 Gearmotor

2 Drive Wheel

3 Driven Wheel

4 Cardan Shaft

5 Guide Wheels

6 Bumper

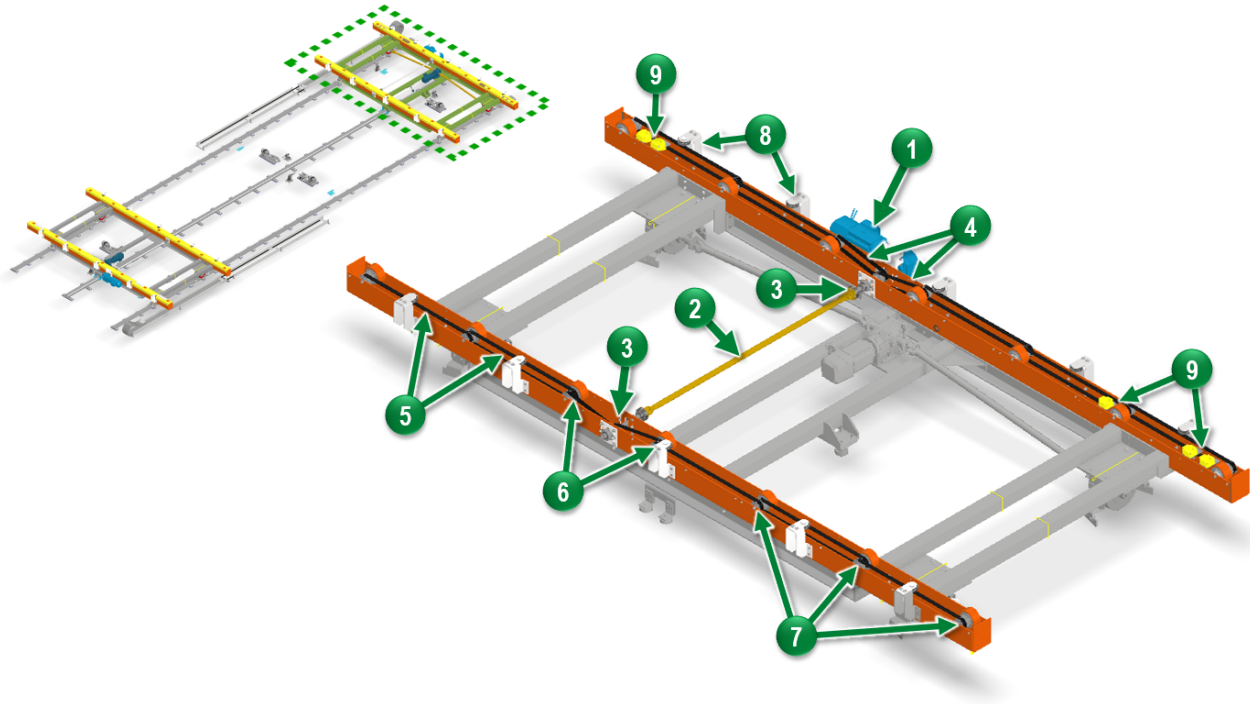
7 Lock Actuator

8 Proximity Switch

9 Barcode Reader

10 Cable Track

## Skillet Power Roll Bed Components



▲ Skillet Power Roll Bed shown with safety covers removed and color for emphasis.

- |                         |                       |                                      |
|-------------------------|-----------------------|--------------------------------------|
| <b>1</b> Gearmotor      | <b>2</b> Cardan Shaft | <b>3</b> Drive/Driven Shaft Assembly |
| <b>4</b> Drive Belts    | <b>5</b> Driven Belts | <b>6</b> Drive Rollers               |
| <b>7</b> Driven Rollers | <b>8</b> Side Guides  | <b>9</b> Sensors                     |

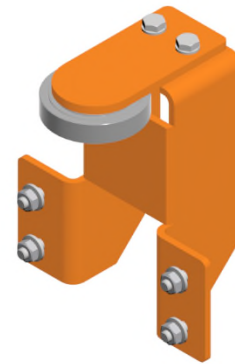
## “Skillet” Power Roll Bed Overview

Power Roll Beds are a major element of FATA Automation’s Skid Conveyor Systems. The products are modular in design using common components such as motors, belts, rollers, switches, cords, and trunk cables as a complete package.

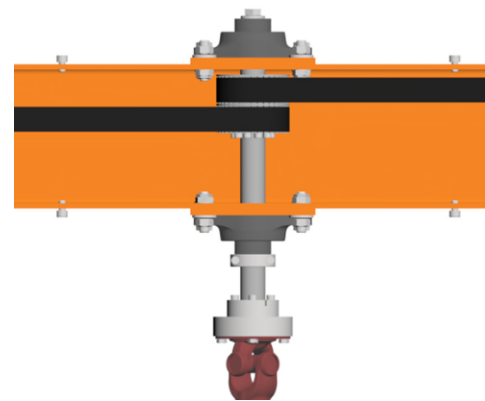
The side frame of a Power Roll Bed is made of bended Z-profile that mounts the carrying rollers.

The gearmotor is connected to adjacent drive rollers with its double tooth pulley fitted to the motor shaft and they in turn are connected to the driven rollers and timing belts to transport skids along the table.

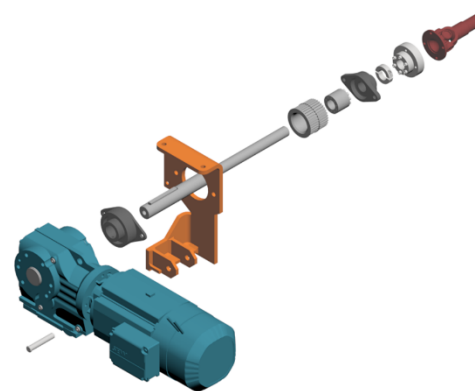
The “Skillet” Power Roll Bed features a cardan shaft connected to the drive shaft which connects to the opposite end of the frame, which features another shaft assembly to turn more sets of rollers and belts.



▲ Side-mounted guide wheel



▲ Top-down view of driven-side shaft assembly.



▲ Exploded view of motor-side drive shaft assembly.