



# **Dual Belt Transfer Operation Manual**

**V1.1**

# SAFETY

## GENERAL SAFETY

Apex Filling Systems, LLC (APEX) manufactures and designs all of its products so they can be operated safely. However, the primary responsibility for safety rests with those who use and maintain these products. The following safety precautions are offered as a guide that if conscientiously followed, will minimize the possibility of accidents throughout the useful life of this equipment. The safety of personnel, equipment and plant facilities should be considered during equipment operation and with each changeover of product, or any machine modifications.

Only those who have been trained and delegated to do so and have read and understood this operator's manual should operate the equipment. Failure to follow the instructions, procedures and safety precautions in this manual can result in accidents and injuries.

DO NOT modify the equipment except with written factory approval. Unauthorized equipment modifications will void the warranty.

Each day walk around the equipment and inspect for leaks, loose parts, missing or damaged components, and parts out of adjustment. Perform all recommended maintenance noted in this manual.

***EQUIPMENT SHOULD ALWAYS BE DE-ENERGIZED (POWER AND AIR) BEFORE MAKING MECHANICAL ADJUSTMENTS.***

## ELECTRICAL SHOCK

- ✓ To avoid electrical shock hazard, make sure this equipment is properly grounded.
- ✓ Dangerous voltages are present within the electrical enclosures. DO NOT operate this equipment with electrical covers open or removed.
- ✓ Keep all parts of the body, hand held tools, or other conductive objects away from exposed live-parts of the electrical system. Maintain dry footing and stand on insulating surfaces. DO NOT contact any portion of the equipment when adjusting or making repair to exposed live parts of electrical system.
- ✓ Attempt repairs only in a clean, dry, well-lighted, and ventilated area.

## CONTACT MATERIALS COMPATIBILITY

APEX endeavors to make all contact parts compatible with buyer's products, if known. Because of the wide variety of possible products, Apex Filling Systems, LLC cannot be responsible or liable for ensuring compatibility of contact material with the products. Evaluate material compatibility prior to machine use. Failure to follow this procedure can result in machine damage, fire, operator injury or death




## SAFETY COMPLIANCE LIABILITY

APEX endeavors to make machinery as safe to operate as possible. National, state and local laws related to safety in the workplace apply primarily to the responsibilities of the employer, and not the equipment manufacturer. The seller agrees to cooperate with the buyer in finding feasible answers to compliance problems. However, because APEX has little control of the many factors which may significantly affect the environment in which this equipment is installed, the seller does not warrant this equipment to be in compliance with OSHA or any like state or local laws or regulations. It is the buyer's responsibility to provide the modifications necessary to assure compliance with the laws and regulations at the point of installation.

A complete inspection of product is necessary until the machinery is proven to produce acceptable results. This should also be performed after every changeover.

## CONVENTIONS

To ensure the safety of personnel which will install, adjust, maintain and operate this equipment, it is imperative that they understand the dangers, warnings and caution notices. It is important to understand the *signal words* that may be used throughout this manual.

	Alerts to immediate hazard, which will result in death or severe personal injury, if not avoided
	Alerts to a hazard which will result in serious injury, or death in some cases, if not avoided.
	Alerts to a potential hazard that may result in a serious personal injury, if not avoided. It also alerts against an unsafe practice that will permanently damage equipment or property.
<b>IMPORTANT</b>	Indicates a suggestion as to how to use or adjust the equipment for best product results.
<b>NOTE</b>	Points out a proper use that will avoid damage to the equipment, or will extend the life of the parts.

# Machine Features and specifications:

## Introduction:

APEX Dual Belt Transfer utilize gripping belts in order to grab onto containers and transfer them between gaps in conveyors. This is typically used for adding a label to the bottom of the container.

## Features and benefits:

- **Robust**  
Made of anodized aluminum and stainless steel, this machine maximizes the working life, and minimizes maintenance costs and downtime.
- **Flexible**  
Versatility and Simplicity are intrinsic to the design. Many shapes and sizes of containers can run on one machine.
- **Simple Changeover**  
Simple mechanical adjustment for different size containers. Quick changeover, simple and easy to clean.
- **Variable Speed DC Drives**  
Flexibility to match your production line speed.

## Mechanical Dimensions and Loading:

**Standard Dimensions(ref):** 36.5"x28"x40

**Shipping Dimensions(ref):**

**Approximate Shipping Weight:** ~140 pounds

## Electrical Specifications and Requirements:

**Electrical Requirements:** 120VAC/50-60hz/1phs/5amp

**Power Consumption:** 1.6 A continuous.

# Installation and Start-up:

## Installation Procedures

After clearing the area for the Dual Side Belt Transfer, move the machine into position. Using a level, check the machine to ensure it is level. To level, adjust the leveling legs by loosening the jam nut and adjusting to the desired height. If needed, wrench flats are machined into the leveling legs to assist with adjustments. After adjusting, ensure that the jam-nut is relocked. Because each belt is controlled separately, ensure that belts are running at the same speed. This is especially important when running non-round containers.

## Start-up and Commissioning:

This manual should be read completely before powering-up the machine. Commissioning of the machine should be performed by a trained technician only after complete understanding of the machine, and with products that match samples indicated to Apex Filling Systems, LLC if supplied. After the machine is adjusted for the bottle and cap combination, the machine can be put into operation with the following steps.

- Check the mechanical system for loose or missing parts
- Check that all electrical connections are square
- Keep all personal clear of machine when starting
- Run equipment for 5 min before running production

To power on, flip the on switch on the 2 DC Drives. Ensure the belts are running at the same speed. To adjust speed, turn knob on the DC Drive.

# Operation:

## Theory of Operation:

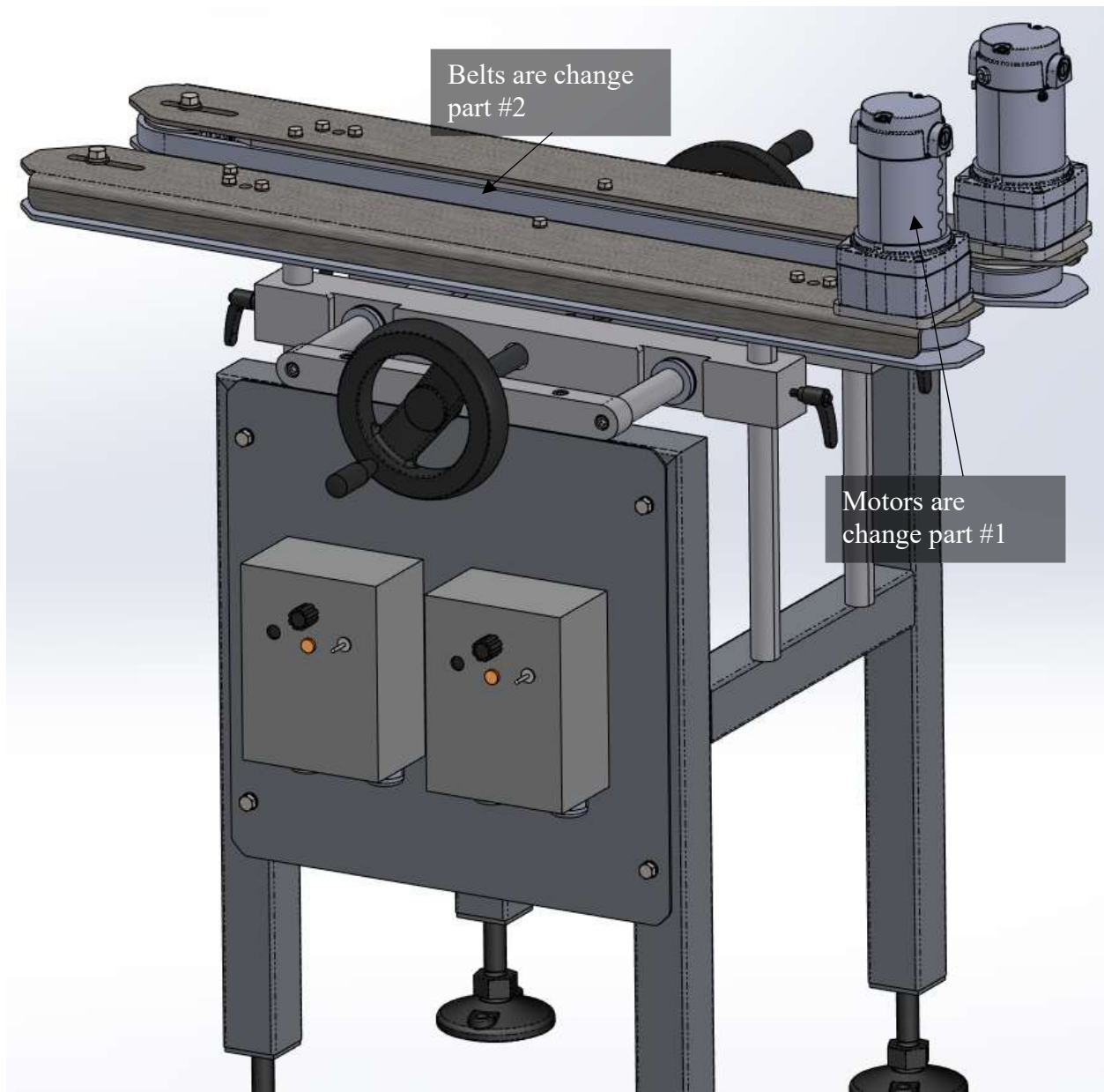
APEX Dual Side Transfer are versatile and easy to use, able to transfer a wide range of containers and designed with simple changeover in mind. Containers are held by belts on both sides, allowing access to the bottom of the containers.

## Mechanical Adjustments:

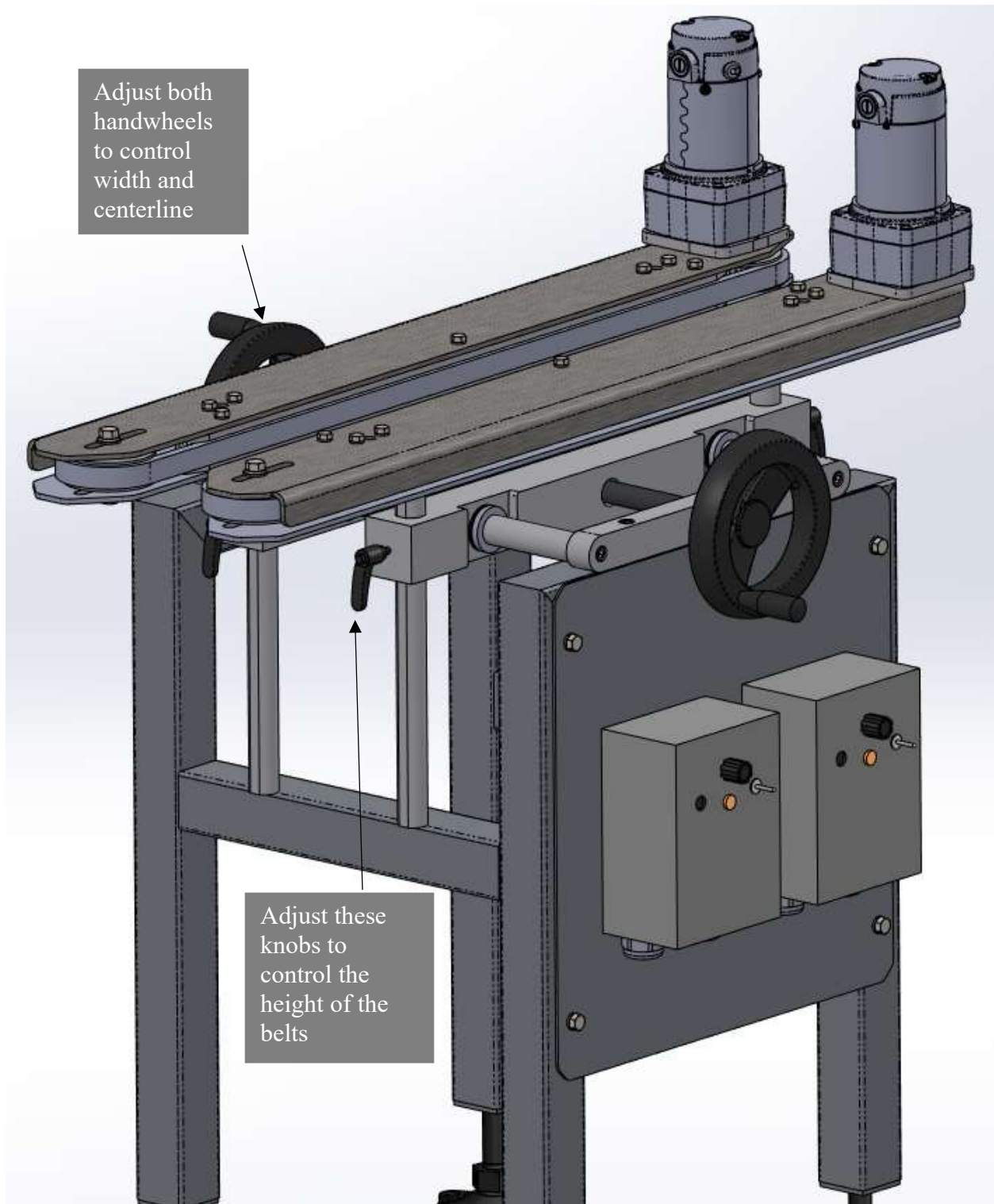
There are 2 primary mechanical adjustments in order to accommodate almost any size/shape of container. To adjust the width, use the handwheels on both sides of the conveyor. Make sure the center is completely lined up with the center of the conveyor. To adjust the height, simply loosen the screws or handles, and raise the belt housing to the appropriate height. See Figure 2 for the location of the handwheels and handles.

## Electrical Adjustments:

The speed of the conveyor can be adjusted by turning the potentiometer. When changing the speed, make sure the speed of both belts is the same.



*Figure 1.*



*Figure 2.*

# Servicing:

## Cleaning Procedure:

It is important that the machine is kept clean of dirt, broken glass, sand, etc. as these will reduce the wear life of the chain, wearstrips, etc. The machine should be cleaned with water or soap at regular intervals. Stronger detergents are often used in the food industry and can be corrosive on the machine components. Therefore, the machine should be washed down thoroughly immediately after cleaning with any harsh detergents.



**WARNING:** When using a high-pressure pistol with cold and hot water, as well as steam for cleaning, do not spray near any electrical enclosures.

## Recommended Maintenance and Schedules:

Itemized below are simple guidelines for maintenance. Several parts of the equipment should be inspected regularly to ensure the longest wear life possible. The following points should be controlled at the inspection:

Components	Daily	Weekly	Quarterly
Ensure the belt can run freely	x		
Check belt housing for any foreign objects	x		
Clean machine thoroughly once a week, more depending of environment	x	x	
Check if Jam nuts on leveling legs are right		x	
Check Belt for any wear		x	
Visually inspect motor and check lubrication levels			x



## Spare Parts List

Part Description	APEX Part Number
Motor	10504-00007
Belt	10508-00001
Control Box Resistor	10113-00001
Control Box Fuse	10108-00004

### FACTORY TECHNICAL SUPPORT

#### **Apex Filling Systems, LLC**

1001 Eastwood Road  
Michigan City, Indiana 46360 USA  
(219) 575-7493 [www.apexfilling.com](http://www.apexfilling.com)

#### Spare Parts

Direct: (219) 575-7493 ext : 107  
Fax: (219) 575-7586  
[parts@apexfilling.com](mailto:parts@apexfilling.com)

## TROUBLESHOOTING

## TROUBLESHOOTING RECORD

To better assist you in troubleshooting, please record the following information with the model number from the frame, the problem that is occurring, speed of application, product characteristics (i.e. Foamy Product, High Viscosity, or Special Variation).

Company Name:

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Your Name:

Phone Number:

FAX Number:

Date:

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## **NOTES**