CON-TROL-CURE®

UVPS®

UV PROCESS SUPPLY, INC.

# Universal Bench-top Conveyor

## OPERATOR'S GUIDE

## DISCLAIMER

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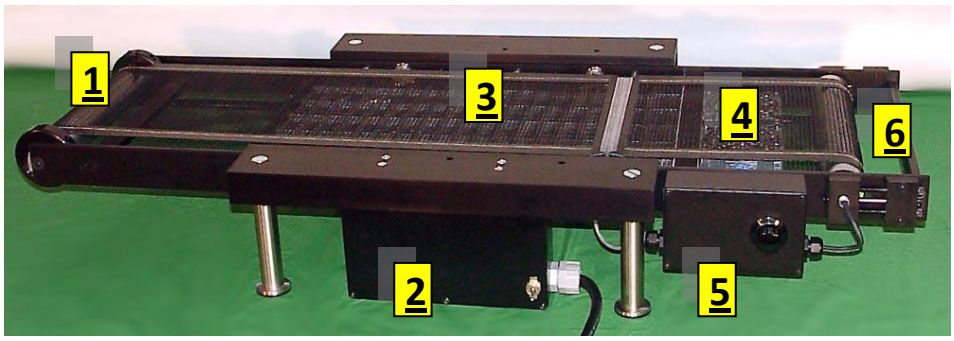
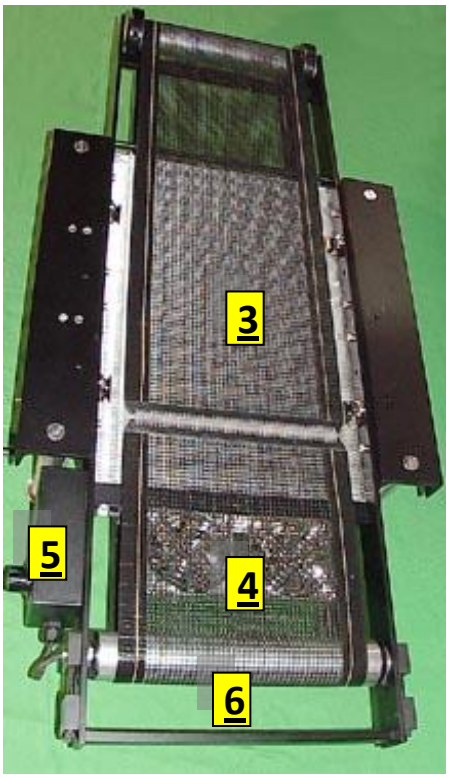



## Orientation:

***1 In-feed***

a. The in-feed section consists of an idler roller and belt tracking guide collars. (Caution! – There is an inward nip present between the rotating collars and a cross support bar. Keep hands clear of this area)

b. The tracking guide collars help keep the belt centered regardless of how well adjusted the tension is. However, always ensure there is a small gap present between the collars and the belt to prevent rubbing and wear. If the belt consistently tries to ride up on one of these collars, belt adjustment is required. (see belt adjustment section)

c. Take special care to ensure the collars are positioned square on the roller (no wobble) and do not over tension collars, especially if located on the extreme outer edges of the idle roller. Over tensioning in this region will compress the idle roller bearings causing premature wear of the idle roller bearings and may overheat the drive roller motor due to excessive load.

***2 Conveyor Power***

a. The conveyor power section input power to cord is 110V 50/60Hz. Also in this section is the main power switch.

***3 UV Curing***

a. The UV curing section is the area where you will locate your UV lamp housing. The chevron heat exchanger allows air to flow through to cool the plate, while blocking any UV light due to the tight overlapping V-shape pattern. Locate your UV lamp near the center of this plate for optimum results.

***4 Conveyor Fan***

*a.* The conveyor fan section cools the belt as well as functions as a vacuum hold-down for smooth exit of lightweight papers and materials.

***5 Conveyor Control***

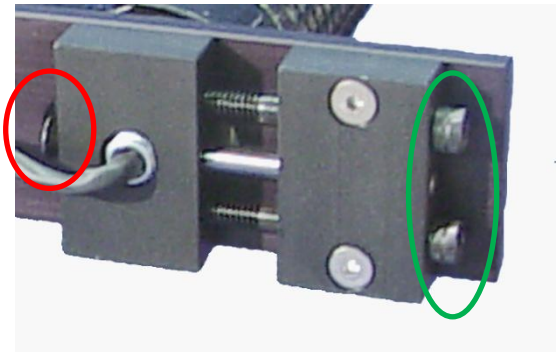
a. The conveyor control section is where you will find your conveyor belt speed control dial. Our conveyors ship with a variety of speed ranges based on end users requirements. The default range is 24:1 ratio ( 40-136 fpm )

***6 Conveyor Belt Adjustment*** *(refer to pictures on previous page)*

The conveyor belt adjustment allows you to adjust the tension of the belt for even and smooth tracking. This roller is the power drive for the conveyor, therefore it is important not to bind the roller at any extreme angles or damage to the drive mechanism can occur. Replace the belt if excessive angle adjustments are needed to keep belt tight on both sides and tracking properly.
Excessive tension will cause premature belt failure.

**Belt Tensioning Adjustment**

The belt is preset at the factory for proper tension and tracking. Through normal use, heat will cause the belt to expand and therefore it may need to be tightened slightly to maintain tracking. **Do not over tighten.** Excessive tension will stretch the belt, and also cause additional strain against the Drive Roller Motor, resulting in a potential premature failure of the belt and/or drive roller.



**To adjust tracking:**

**! Warning!** Never loosen the screw on the back of this adjuster. This is the locking screw for the drive roller shaft. If the locking screw becomes loose, the shaft can spin, twisting the wire harness and permanently damaging the drive roller. Periodically check this screw to ensure it is tight.

Locate the **double Allen screws** on the ends of the tensioning adjusters. (There is a pair on the left and right side of the conveyor)

One the side the belt is drifting towards; turn either one of the two screws clockwise to tighten the belt on that side. This forces the belt back the other way. Make very small adjustments to avoid over tensioning. You may want to *manually slide the belt to center first, and then make an adjustment. This prevents over adjusting. (*depending on belt width relative to overall conveyor width)

Once the belt is tracking stable, carefully turn the second screw clockwise until it seats into the adjuster at the same amount as the first screw. Be careful not to over tighten because this will further adjust the roller, which in turn will put slack in the opposite screw. The purpose of the second screw is to secure the roller so that the belt tension and vibration does not cause the roller to travel backwards (loosen) on its own.

**Changing the Belt**

To remove the belt, loosen all four adjusting screws (counter-clockwise) until the roller is at its closest point toward the lamp housing. Locate the metal splice on the belt (looks like a zipper). There is a wire pin interwoven through this splice. Simply slide the pin completely out (either side) and the belt will separate.

Reverse the process for putting on a new belt. Always tension the belt evenly and lightly. Over tensioning a new belt will cause it to stretch quickly especially when heated by the lamp for the first time. This can cause premature failure of the belt, and/or create stress cracks in the edge seams.

**General Operation Guidelines and Safety**

If using this conveyor with a UV light source: always ensure that the belt is in motion when the UV light is on. Even after UV light is switched off, allow the belt to remain in motion for 5 – 10 minutes while lamp cools. Failure to do so may result in burns to the belt.

When adding your UV light to this conveyor, be certain to provide sufficient shielding to protect the operator from UV exposure. We have furnished two pieces of rigid blue UV shielding to supplement your own shielding. Use this material as you see best suited in conjunction with your own primary shielding. The rigid blue UV filters material is not intended for direct viewing of the UV light. This material should only be used as a way of viewing the entrance and exit where the potential of reflected UV light exposure is most likely.

The higher you locate your lamp housing above the belt, the longer/larger you should make the tunnel shielding entrance and exit. A UV Radiometer should be used to analyze light leaks for potential operator hazards.

Safe retrofit of UV curing equipment onto this conveyor is the responsibility of the end user.