



Covington Conveyor

Tutorial on how to build a conveyor system for Covington model 760 or 761 Wet Belt Sander.

By Marcia Bernadette

Art Glass by Marcia

<http://fused.glass/>

This is my solution to conveyance of glass for the Covington Wet Belt Sander. There is also an accompanying video, located at Glass Campus. There may be any number of ways to reduce the cost and re-engineer this rig. This represents one way that is durable and solid.

TOOL LIST

Drill
Pliers
3/16" metal bit
1/8" metal bit

Hack Saw

OPTIONAL TOOL LIST

Dremel
Dremel 1/8" metal bits
Dremel Press
Jig Saw

7/32" or 1/4" bit

Parts List:

1 – 1mm 6 1/2" x 7 3/4" sheet aluminum or stainless steel	\$ 5.00
44 #10 x 2" SS Phillips Slotted Pan head screws	\$14.50
48 #10 SS screw nuts	\$ 5.00
48 #10 SS washers	\$ 2.50
4 #10 x 3" SS Phillips Slotted Pan head screws	\$ 2.50
1 Waffle grid (varies)	\$12.00
4 10mm ball bearings	\$ 5.00
11 – 1 1/2" Rubber wheel rigid caster	<u>\$27.50</u>
Approximate Total	\$74.00

Alternate Parts List:

1 – 1mm thick 6 1/2" x 7 3/4" sheet aluminum or SS	\$ 5.00
36 #10 x 2" SS Phillips slotted pan head screws	\$11.50
40 #10 SS Screw nuts	\$ 5.00
40 #10 SS washers	\$ 2.50
4 #10 x 3" SS Phillips slotted pan head screws	\$ 2.50
1 Egg Crate Diffuser Grid	\$13.00
4 10mm Ball bearings	\$ 5.00
9 1 1/2" Rubber Wheel rigid Caster	<u>\$21.00</u>
Approximate Total	\$65.50

NOTE: SS means Stainless Steel

Assembly Instructions

- Using a hack saw or jig saw, cut a piece of 1mm Aluminum to 6 1/2" x 7 3/4" to use as the plate.
- Place the cut plate in the pan and draw a box with An X in it where the attachment for the old is Located (see diagram top left).

- Remove the plate from the pan and draw lines as Indicated in the diagram 3/8" from top, 1/8" from Sides, 3 1/4" from bottom and 1/4" from bottom.
- Using your Waffle Grid as a pattern, locate 4 Places to drill holes that are in approximate location as the holes are indicated on the diagram. Mark the grid and the plate.
- Center the casters along the center line you drew at 3 1/4". Mark the location of the screw holes.
- Locate the casters along the edge of the lines at the end and the bottom, and mark the screw locations.
- Using either a 7/32 or 1/4" bit, drill holes in the plate for the waffle grid. (A slightly larger hole makes the screws easier to insert) 3/16 will work also.
- Using a drill or dremel with a drill press, drill all caster holes. I used a Dremel to drill 1/8" pilot holes then I used a a regular drill to enlarge the holes to o 3/16". You can simply use the 3/16" bit if you like.
- Starting with the center casters, align the caster to the holes and screw and tighten with washer and nut. Then move to the edges and repeat until all are done.
- Using a 1/8" bit, drill holes in each section of wall grid. Using 3/16 bit, drill 4 holes for screws.
- Install the 3" screws, with washers and nuts to the waffle grid.

Alternate

As an alternate, you can try 2 casters in the center, of the center row.

Note

A gap of about 1/2" is left between the conveyor and belt to allow for beveling.



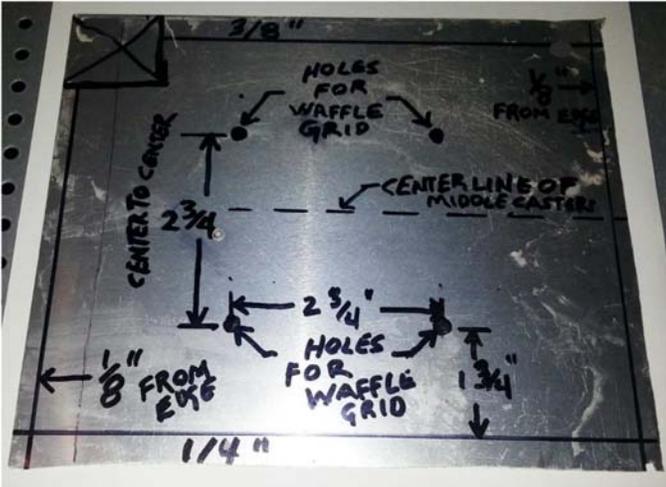
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Drilling Diagram



Underside View

There are a few extra holes that were drilled in error. The instructions rule.



Castors Installed



Waffle Grid



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Conveyor System with casters



Waffle Grid with ball bearings on conveyor