



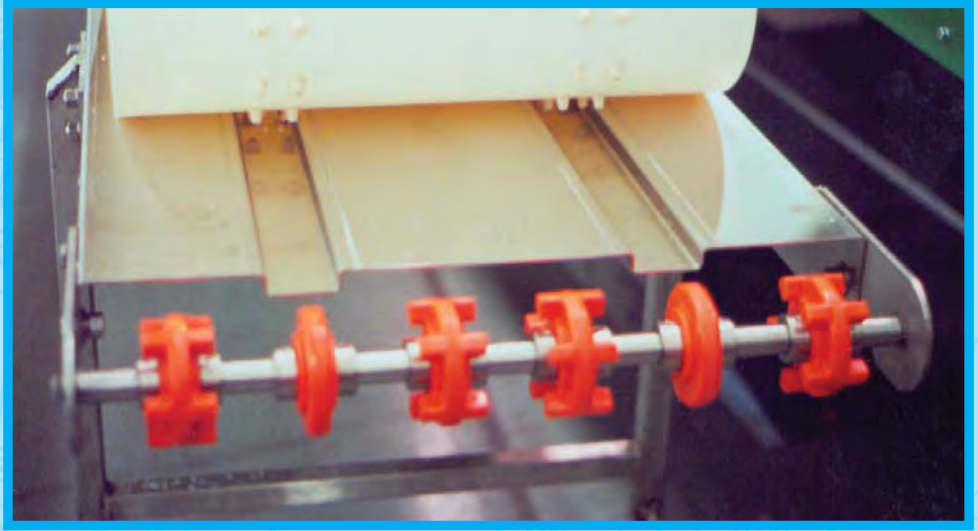
**CONVEYOR & TRANSMISSION LTD**

**SPECIALISTS IN CONVEYOR AND TRANSMISSION PRODUCTS**

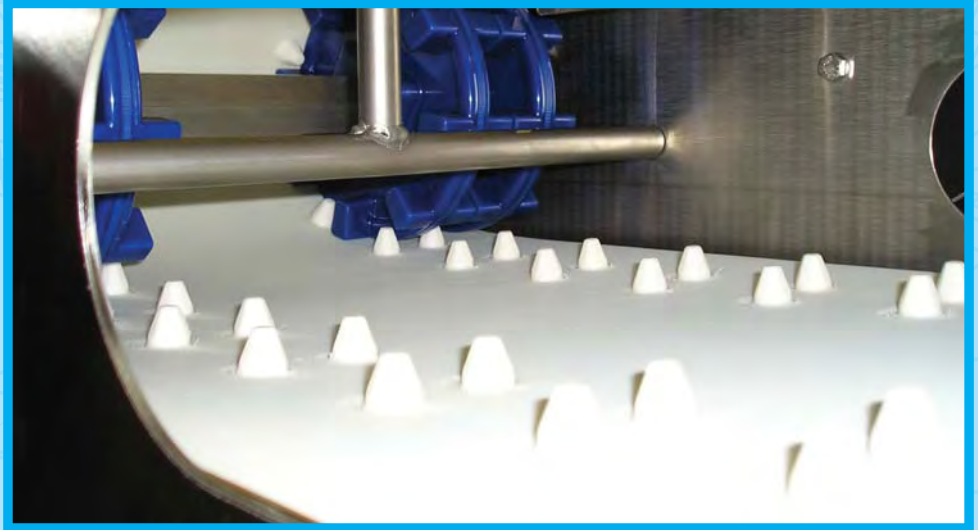
Positive Drive – Simple Solutions

**Cog-Veyor**  
Systems Inc.

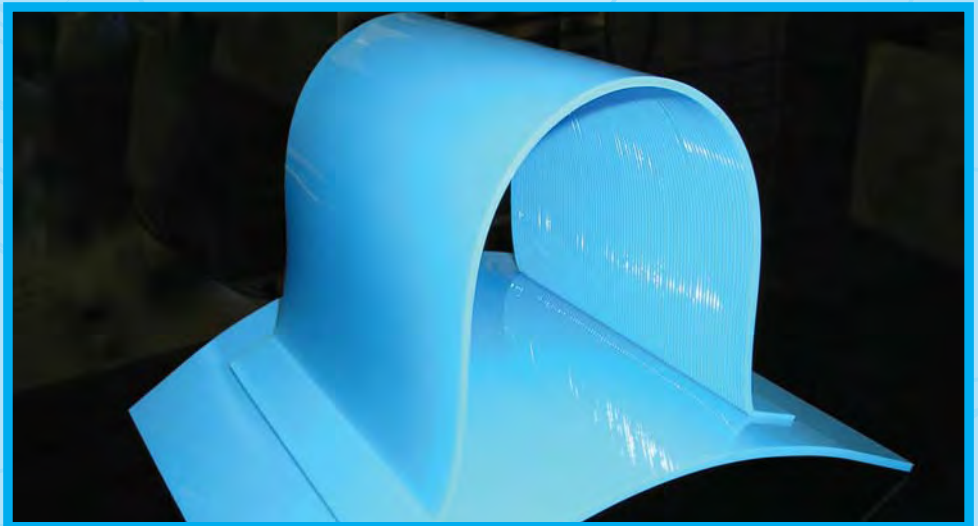
Simple.



Clean.

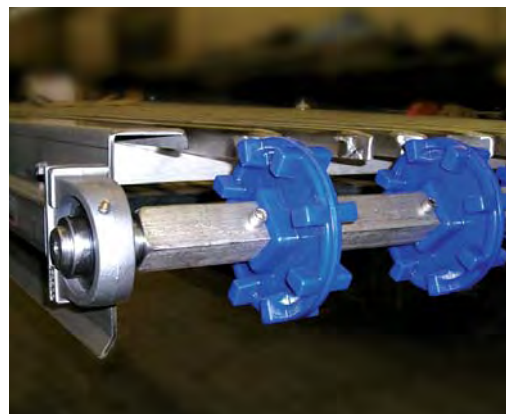


Customized.



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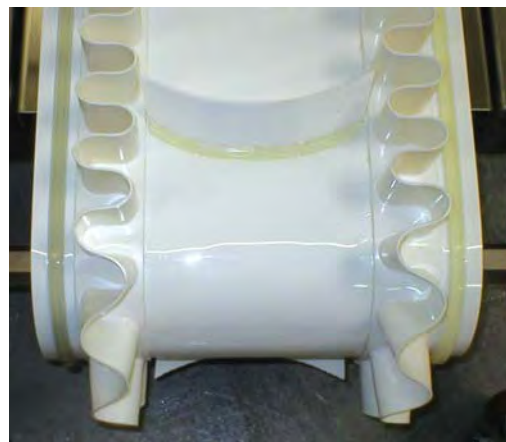
Our simple design reduces manufacturing and maintenance costs



Belt idlers can be used for return and bottom side support



Cog-Veyor's unique design makes it ideal for bottom drive S-type conveyors



Sidewall and cleat combinations can handle many different applications





# The Cog-Veyor Belt



**Quick release take-up reduces time spent on scheduled cleaning and maintenance**



**Positive Drive provides zero slippage and easy tracking**



**USDA approved — ideal for incline meat applications**

## We've Designed Cog-Veyor with Simplicity and Durability in Mind

A whole new world of belt conveyor design is now possible thanks to the advances that the Cog-Veyor system offers. Cog-Veyor cleans easily, will run in the most demanding conditions, and is extremely durable. It does not slip or run off-track and requires minimal tension. Smooth running and maximum pulling power is achieved using open tooth sprockets that intermesh with dual drive lugs on the bottom side of the belt.

All Cog-Veyor belting is made from polyester or urethane material. Our unique design offers better traction, zero slippage, and FDA/USDA/3-A\* approval. A quick release option is also available, which allows for easy belt removal and cleaning.

Our System is adaptable to many different bore sizes, and can be easily fabricated with many different cleat, v-guide and sidewall combinations.

## Industries that use our system include:

- Meat, Poultry, and Fish
- Bakery and Food processing plants
- Dairy
- Fruit and Vegetable
- Bottling and Canning plants
- Packaging, Wood, Paper, and Plastic plants
- Glass, Brick and Tile plants
- Steel mills, Processing, Slitting, and Stamping plants
- Recycling plants

*\*All approvals may not apply to some belting material.*



**Bottom drive demo conveyor with quick release take-up**

# Why Cog-Veyor is the Better Choice

Thanks to its simple yet reliable design, the **Cog-Veyor system offers a considerable cost savings in both manufacturing and maintenance time.** It features inexpensive components that can be installed and serviced on-site with basic, affordable tools.

**Cog-Veyor is a tough belt that is suitable for many applications.** It is appropriate for full food contact, is bacteria-free and performs well in raw food applications. These belts require minimal tension and work to their maximum pulling power, whatever the application. Simply, our belts do not slip!

Our system eliminates mis-tracking problems and provides no hinges or crevasses, where bacteria can build. Cog-Veyor's PCW belting also offers tremendous shock absorption. It does not require large pulley diameters to accommodate bulky, wide cleats, while it is further enhanced with food grade UHMW sprockets and idlers.

**Cog-Veyor belts can also accommodate a far greater range of applications** than modular or traditional belting, while featuring reduced noise levels compared to other belts. Furthermore, our design minimizes the effects of stretch and can handle a significant temperature range, depending on the application. Our design works well with most conveyor applications, with important key benefits:

- Hygiene
- Tracking
- Safety
- Durability
- Positive Drive
- Adaptability to hex, round and square shafts

At Cog-Veyor, we've developed a system that can manage the most demanding circumstances while minimizing the amount of downtime required for cleaning and maintenance. Our belts can be laced or welded within minutes using simple tools. That means you **save on downtime, labour time, extra installation costs and repairs.**

## Some of the reasons our system outperforms the competition include:

- Sprockets are matched to drive lugs on the belt bottom, which ensures positive drive, reduced belt tension and a superior carrying capacity.
- Provides impressive pulling power, especially in wet and dirty applications.
- Self-cleaning sprockets that prevent material build-up.
- Significant cost savings due to exceptionally long belt life.
- **Lower manufacturing costs**—eliminates high cost of customized machine pulleys.
- **Greatly reduce maintenance and clean up costs** (sanitizers, water, etc.)



**Idlers provide belt support, eliminating need for costly custom pulleys**

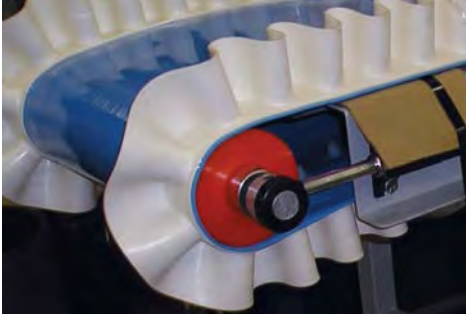


**Cog-Veyor's positive drive is ideal for wet and slippery applications**

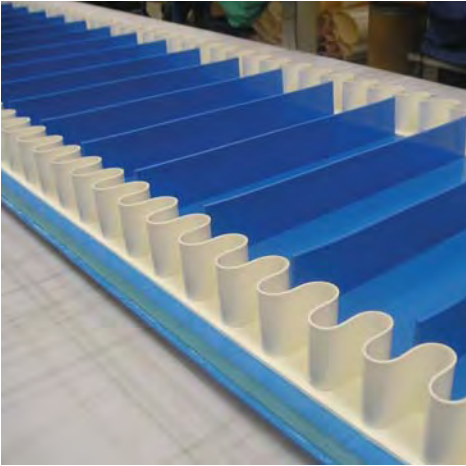


**Production belts are cut from in-stock 72" wide rolls, allowing same day shipments**

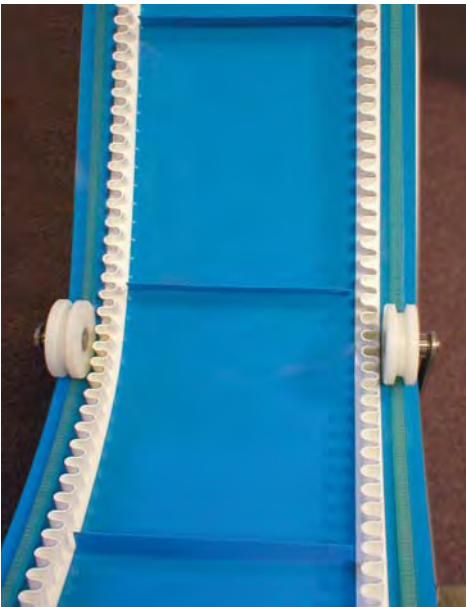
# PCW Belting



Stop product loss with the addition of sidewall



Hi-frequency welded cleats ensure a quick turnaround on custom orders



V-wheel idlers provide topside support in S-type conveyors

## The Advantages of Working with PCW Belting

PCW belting offers many advantages, the most prominent being its ability to reduce dirt and bacteria build-up while ensuring that any foreign materials are easy to remove and clean. Our belting contains a non-porous surface that is FDA/USDA/3-A\* approved, and whose performance consistently distinguishes itself from the competition.

Our PCW belting is a one-piece elastomer constructed product. **Given its construction, PCW belting does not fray or delaminate.** It has chemical, oil, water, abrasion and cut resistances. PCW is a hygienic belt and is approved for raw food applications. PCW can be homogenously welded using many different cleat, v-guide and side wall combinations.

**Below is an overview of our PCW Belting Line.**

## Polyester Belting

- Strong and durable belt that is resistant to acid and chemical substances
- Works well in cold and hot applications
- Available in white and blue
- Stock item is 55D \*\*

## Urethane Belting

- Excellent memory and recovery
- Flexible
- Available in white, blue and clear
- Uses smaller pulleys
- Stock item is 92A\*\*
- High frequency weldability
- Clear urethane works well with lighting inspection conveyors

*\*All approvals may not apply to some belting material.*

*\*\*Different durometers available — please enquire.*

Cog-Veyor offers a wide variety of conveying solutions that can be used with many different applications.



# Additional PCW Belting Information

PCW belting is available with different finishes to accommodate different applications.

## Matte

- Good release characteristics

## Multi-V

- Works well with dirty, wet and oily applications
- Excellent grip on the drive pulley that improves tracking and reduces slipping
- Reduces wet adhesion on slider beds
- Self-cleaning

## Sandblast

- Easy to clean
- Good pulley grip
- Low drag on slider bed

## Smooth

- Easy to clean

## Temperature Range

Depending on the application and pulley size, various material combinations and hardnesses are available to accommodate -50C - +110C\*. For applications and severe temperatures below 0°C or above 60°C, please contact Cog-Veyor Systems Inc. for further assistance.

*Note: Belt material, thickness, conveyor design, v-guides, cleats and sidewalls will affect operating temperature range of belt and pulley diameter required.*

## Cutting and Abrasion

Softer materials are more resilient and perform better in repetitive pounding applications. Harder grades are stronger and can normally withstand cutting applications.

## Approvals\*\*

- FDA
- USDA
- 3-A
- Canadian Department of Agriculture

\* Not all materials are recommended for these temperature ranges

\*\* Approvals do not apply to all belting material



**Cog-Veyor's positive drive outperforms in high incline applications**



**Catenary sag on low tension return**



**Our belting is suitable for abrasive applications**



# Cog-Veyor Design Specifications

## Cog-Veyor Extruded Base Belts Polyester and Urethane

|                  | Part #   | Colour | Durometer | Thickness | Finishes            | Weight Sq.FT lbs. | Recommended Weld Rod |
|------------------|----------|--------|-----------|-----------|---------------------|-------------------|----------------------|
| Polyester Series | PBH2.0SB | Blue   | 55D       | 2.0mm     | Smooth by Sandblast | 0.50              | PB 3/8               |
|                  | PWH2.0MV | White  | 55D       | 2.0mm     | Matte by Multi-V    | 0.50              | PW 3/8               |
|                  | PWH2.0SB | White  | 55D       | 2.0mm     | Smooth by Sandblast | 0.50              | PW 3/8               |
|                  | PWH2.0SV | White  | 55D       | 2.0mm     | Smooth by Multi-V   | 0.50              | PW 3/8               |
|                  | PBH2.5SB | Blue   | 55D       | 2.5mm     | Smooth by Sandblast | 0.63              | PB 3/8               |
|                  | PWH2.5MV | White  | 55D       | 2.5mm     | Matte by Multi-V    | 0.63              | PW 3/8               |
|                  | PWH2.5SB | White  | 55D       | 2.5mm     | Smooth by Sandblast | 0.63              | PW 3/8               |
|                  | PWH2.5SV | White  | 55D       | 2.5mm     | Smooth by Multi-V   | 0.63              | PW 3/8               |
|                  | PWH3.0SB | White  | 55D       | 3.0mm     | Smooth by Sandblast | 0.75              | PW 3/8               |
|                  | PBH3.5SB | Blue   | 55D       | 3.5mm     | Smooth by Sandblast | 0.88              | PB 3/8               |
|                  | PBH3.5SV | Blue   | 55D       | 3.5mm     | Smooth by Multi-V   | 0.88              | PB 3/8               |
|                  | PWH3.5SB | White  | 55D       | 3.5mm     | Smooth by Sandblast | 0.88              | PW 3/8               |
|                  | PWH3.5SV | White  | 55D       | 3.5mm     | Smooth by Multi-V   | 0.88              | PW 3/8               |
|                  | PWH5.0SB | White  | 55D       | 5.0mm     | Smooth by Sandblast | 1.25              | PW 1/2               |
| Urethane Series  | UBM3.0SB | Blue   | 92A       | 3.0mm     | Smooth by Sandblast | 0.75              | UB 3/8               |
|                  | UCH3.0SB | Clear  | 97A       | 3.0mm     | Smooth by Sandblast | 0.75              | UC 3/8               |
|                  | UWM3.0SV | White  | 92A       | 3.0mm     | Smooth by Multi-V   | 0.75              | UW 3/8               |
|                  | UBM4.0SB | Blue   | 92A       | 4.0mm     | Smooth by Sandblast | 1.00              | UB 1/2               |

Charts represent stock belting only and availability may change without notice.

**Please Note: There are many different custom extrusions available upon request.**

## PCW Flat Belt Ratings\*

| Ratings at 21°C / 70°F |                |                 |                      |         |        |
|------------------------|----------------|-----------------|----------------------|---------|--------|
|                        | Belt Thickness | Min.Pulley Dia. | PIW                  | Lacing  |        |
|                        |                | 90° Splice      | Flat Belt 3% Tension | Plastic | Staple |
| Polyester              | 2.0mm          | 3" / 75mm       | 68 lbs               | APF100  | 62     |
|                        | 2.5mm          | 4" / 100mm      | 86 lbs               |         |        |
|                        | 3.0mm          | 5" / 125mm      | 103 lbs              | APF150  | 125    |
|                        | 3.5mm          | 6" / 150mm      | 120 lbs              |         |        |
|                        | 5.0mm          | 10" / 250mm     | 172 lbs              | N/A     | 187    |
| Urethane               | 3.0mm          | 4" / 100mm      | 50 lbs               | APF150  | 125    |
|                        | 4.0mm          | 6" / 150mm      | 66 lbs               |         |        |

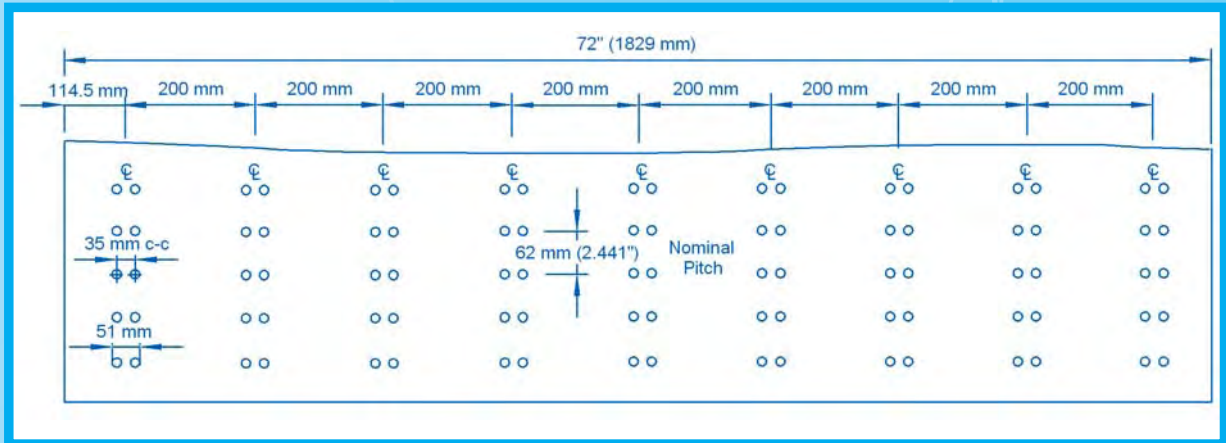
PIW Calculation = PIW (pounds per inch width) = N/mm x 5.71

Note: Welded endless splices are recommended over lacing

*Belt material, thickness, conveyor design, v-guides, cleats and sidewalls will affect operating temperature range of belt and pulley diameter required.*



# Stock Production Diagram



Cog-Veyor is available in standard 72" wide rolls, 200 mm centers—eliminating waste and providing quick turnaround on orders

Design Recommendations:

- Final Belt length is determined by order length +/- half a pitch
- On all Cog-Veyor systems take-up is required.

## Cog-Veyor Rating\* (21 °C / 70 °F)

|           | Thickness | Vertical weight capacity | Horizontal weight capacity |
|-----------|-----------|--------------------------|----------------------------|
| Polyester | 2.5mm     | 344 lbs.                 | 833 lbs.                   |
|           | 3.5mm     | 480 lbs.                 | 1167 lbs.                  |
|           | 5.0mm     | 640 lbs.                 | 1667 lbs.                  |
| Urethane  | 3.0mm     | 200 lbs.                 | 1000 lbs.                  |
|           | 4.0mm     | 264 lbs.                 | 1333 lbs.                  |

Multiply these figures by the number of double cog rows on your belt.

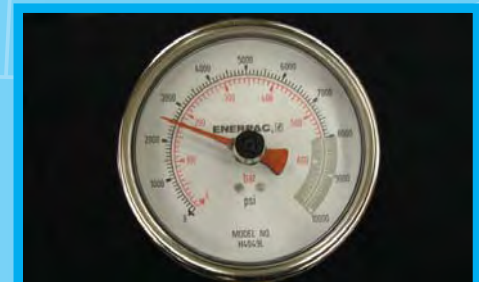
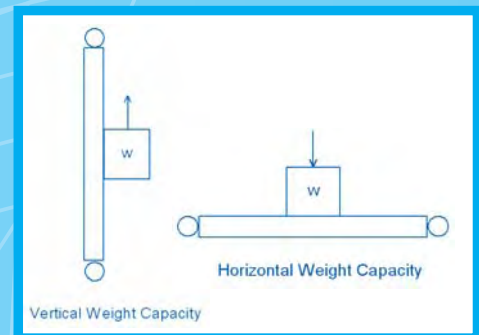
Please consider the pulley diameter when calculating belt rating.

Important Note: Take into consideration the co-efficient of friction between the belt and support/bed.

Eliminating standard double cog rows spaced at 200mm is not recommended.

**Cog-Veyor Positive Drive System operates at full efficiency because it eliminates slippage between belt and pulley. This in turn saves on electricity costs and reduces wear on motors, gearboxes, and bearings.**

*\*Based on non-perforated belts*

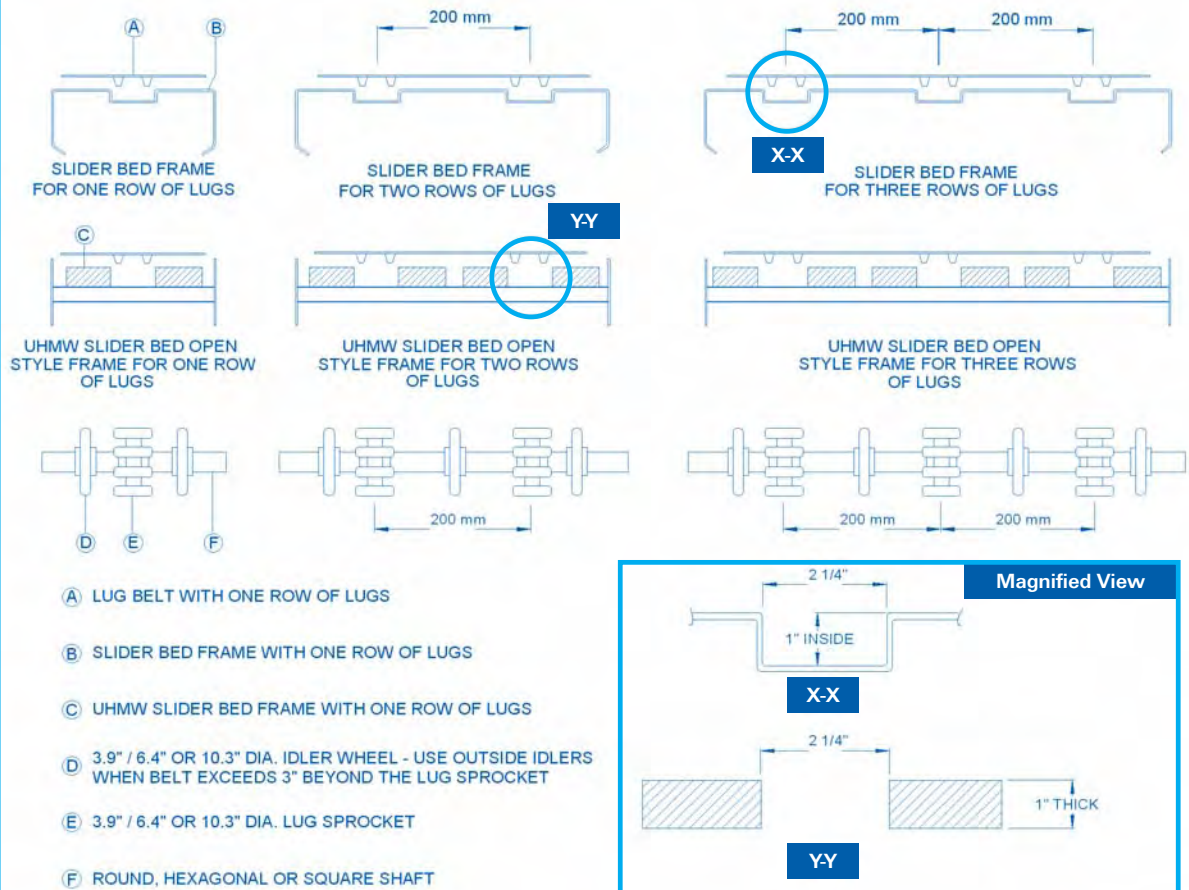


Samples from production runs are tested to failure to ensure consistent quality control

# Cog-Veyor System Drawings



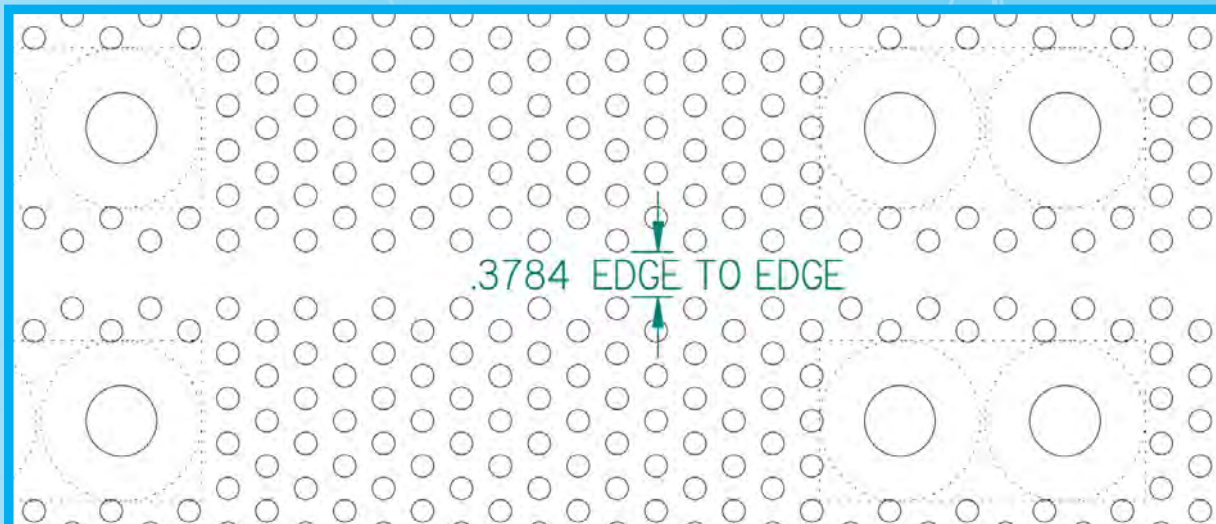
Typical Cog-Veyor bed showing drive lug arrangement and UHMW support strips



Idlers and sprockets are combined to eliminate the need for expensive steel pulleys



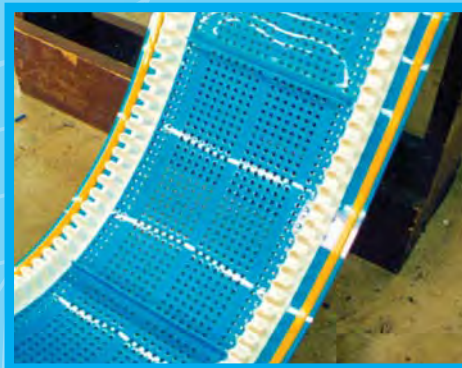
## Perforated Belt Diagram\*



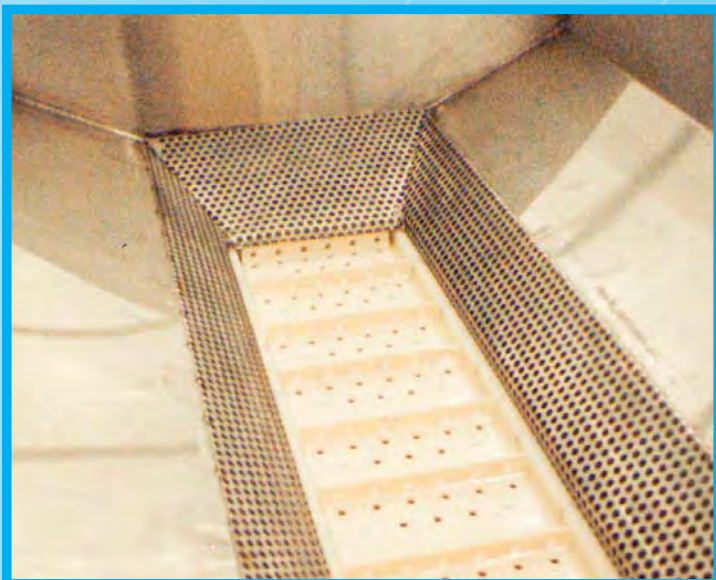
Magnified view shows lug placement allowing maximum perforation



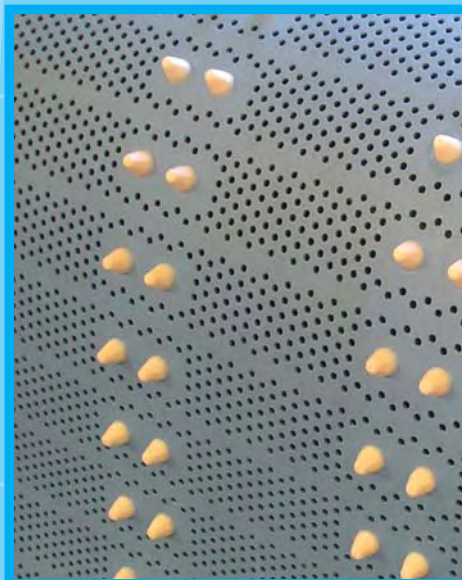
Stock rolls are 60" wide — 8 Drive Lug Rows



Custom patterns are available



Cog-Veyor's positive drive is ideal in wet and dry hopper applications



Excellent drive and tracking in de-watering applications

*\*23% open area at stock width*



# Splicing

Cog-Veyor uses specialized tools that are simple and easier to use than most conventional belt splicing or lacing equipment. Our tools are required for use in our belting applications, providing improved belt longevity. Our welding tools cost less than the competition and our belts can be welded endless within minutes. Cog-Veyor keeps in mind that welding any belt should be easy and simple.



Cut belt square and thoroughly clean before placing in jig



Router is used to prepare and finish splice



Cog-Veyor belts can be spliced endless within minutes

**Traditional belt lacing may also be used with excellent results.**

See chart on page 6 for recommended fastener sizes.

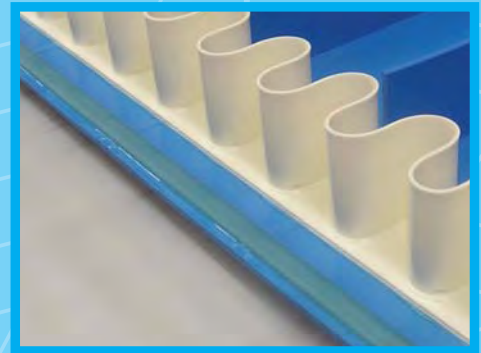


Finished splice — endless, clean and smooth

## Extruded Profiles

| Weld Rods |            |        |           |           |
|-----------|------------|--------|-----------|-----------|
|           | Part #     | Colour | Durometer | Top Width |
| Polyester | PB 1/4 ROD | Blue   | 55D       | 1/4"      |
|           | PB 3/8 ROD | Blue   |           | 3/8"      |
|           | PW 1/4 ROD | White  |           | 1/4"      |
|           | PW 3/8 ROD | White  |           | 3/8"      |
|           | PW 1/2 ROD | White  |           | 1/2"      |
| Urethane  | UB 3/8 ROD | Blue   | 92A       | 3/8"      |
|           | UC 3/8 ROD | Clear  |           | 3/8"      |
|           | UW 3/8 ROD | White  |           | 3/8"      |
|           | UB 1/2 ROD | Blue   |           | 1/2"      |

Note: Weld Rods are for splicing and cleating.



## Sidewall Chart\*

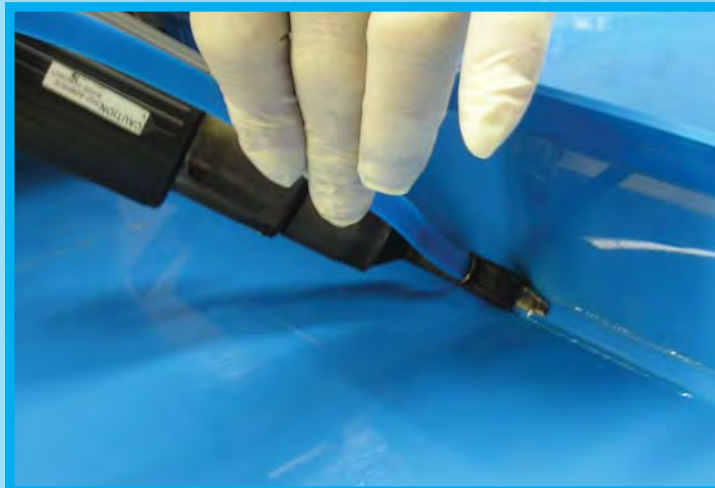
| Min. Pulley Diameter |        |             |                |                           |
|----------------------|--------|-------------|----------------|---------------------------|
|                      | Part # | Height (mm) | Sidewalls (mm) | Sidewalls and Cleats (mm) |
| Urethane             | U30    | 30          | 80             | 100                       |
|                      | U40    | 40          | 100            | 100                       |
|                      | U60    | 60          | 100            | 125                       |
|                      | U80    | 80          | 130            | 130                       |
|                      | U100   | 100         | 160            | 160                       |

Note: Always reference minimum pulley requirements of base belt when using sidewall.

*\*Belt material, thickness, conveyor design, v-guides, cleats and sidewalls will affect operating temperature range of belt and pulley diameter required.*

## Cleat Sizes

All cleats are cut and made from the same base material as our belts. There are unlimited sizes and arrangements available.



Urethane cleats can be hi-frequency welded or welded by hand

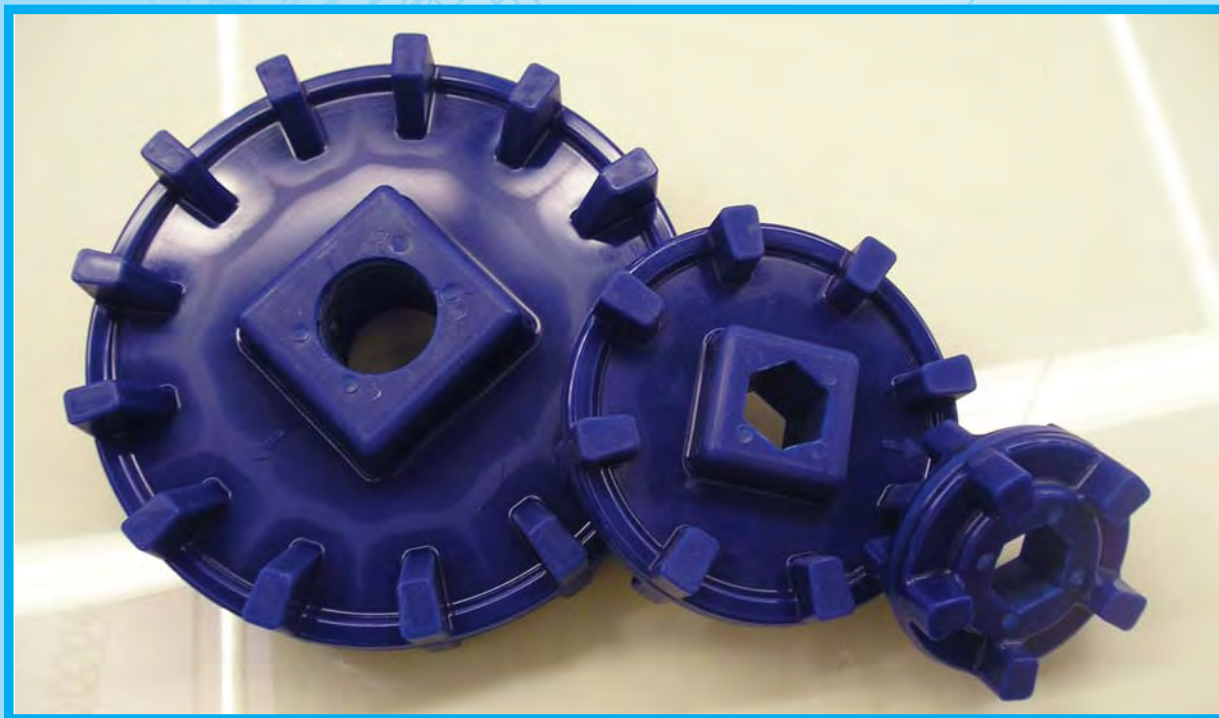
## V-Profiles

| V-Profiles |        |        |           |       |
|------------|--------|--------|-----------|-------|
|            | Part # | Colour | Durometer | Width |
| Polyester  | A-VPWS | White  | 35D       | 1/2"  |
|            | B-VPWS | White  |           | 5/8"  |
| Urethane   | AV-CU  | Clear  | 75A       | 1/2"  |
|            | BV-CU  | Clear  |           | 5/8"  |

Note: Other Profiles — Made to Order



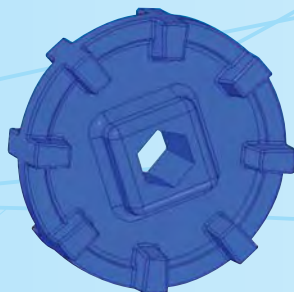
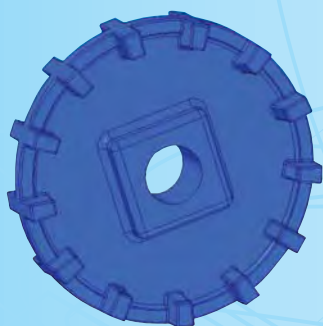
# Sprocket Diagram and Dimensions



**10.3" Sprocket Diagram**

**6.4" Sprocket Diagram**

**3.9" Sprocket Diagram**



## Cog-Veyor Suggestions for Sprockets\*

The recommended minimum cog sprocket diameters are as follows:

| Sprocket Size  | Urethane Belt | Polyester Belt | Tooth Width |
|----------------|---------------|----------------|-------------|
| 3.9" Diameter  | 2.5 to 3mm    | 2 to 2.5mm     | 2"          |
| 6.4" Diameter  | 2.5 to 4mm    | 2 to 3.5mm     | 2"          |
| 10.3" Diameter | 2.5 to 4mm    | 2 to 5mm       | 2 1/2"      |

Please Note: The specifications enclosed are based on an ambient room temperature of 21°C. Please consult Cog-Veyor prior to operating in any extreme conditions for proper recommendations.

*\*Belt material, thickness, conveyor design, v-guides, cleats and sidewalls will affect operating temperature range of belt and pulley diameter required.*



## Cog-Veyor Sprocket Information

| Sprocket Part # | Bore           | OD    | HUB         |        | Face Width |
|-----------------|----------------|-------|-------------|--------|------------|
|                 |                |       | Dimension   | LTB    |            |
| PCS-4A          | 1" Round       | 3.9"  | 2.5" Round  | 1 1/8" | 2"         |
| PCS-4B          | 1 1/4" Hex     |       |             |        |            |
| PCS-4C          | 1 1/2" Square  |       |             |        |            |
| PCS-4D          | 40mm Square    |       |             |        |            |
| PCS-6E          | 1 1/4" Round   | 6.4"  | 2.2" Square | 2"     | 2"         |
| PCS-6B          | 1 1/4" Hex     |       |             |        |            |
| PCS-6C          | 1 1/2" Square  |       |             |        |            |
| PCS-6D          | 40mm Square    |       |             |        |            |
| PCS-10F         | 1 15/16" Round | 10.3" | 3.4" Square | 2.5"   | 2.5"       |
| PCS-10G         | 2 1/2" Square  |       |             |        |            |
| PCS-10H         | 60mm Square    |       |             |        |            |

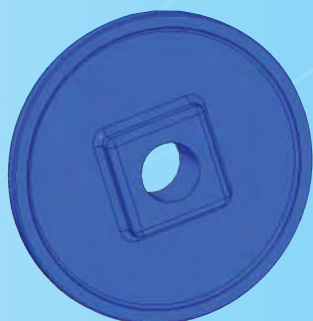
PCS = Sprocket  
LTB = Length Through Bore

## Cog-Veyor Idler Information

| Idler Part # | Bore           | OD    | HUB         |        |
|--------------|----------------|-------|-------------|--------|
|              |                |       | Dimension   | LTB    |
| PCI-4A       | 1" Round       | 3.9"  | 2.5" Round  | 1 1/8" |
| PCI-4B       | 1 1/4" Hex     |       |             |        |
| PCI-4C       | 1 1/2" Square  |       |             |        |
| PCI-4D       | 40mm Square    |       |             |        |
| PCI-6E       | 1 1/4" Round   | 6.4"  | 2.2" Square | 2"     |
| PCI-6B       | 1 1/4" Hex     |       |             |        |
| PCI-6C       | 1 1/2" Square  |       |             |        |
| PCI-6D       | 40mm Square    |       |             |        |
| PCI-10F      | 1 15/16" Round | 10.3" | 3.4" Square | 2.5"   |
| PCI-10G      | 2 1/2" Square  |       |             |        |
| PCI-10H      | 60mm Square    |       |             |        |

PCI = Idler  
LTB = Length Through Bore

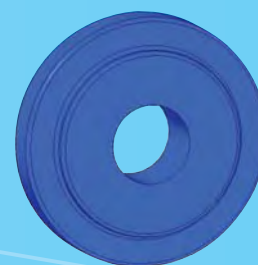
10.3" Idler Diagram



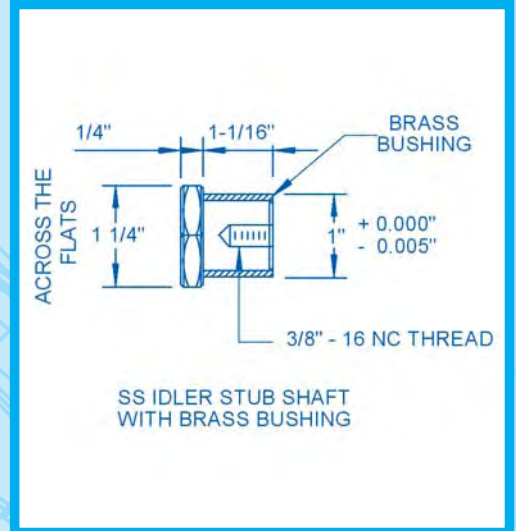
6.4" Idler Diagram



3.9" Idler Diagram

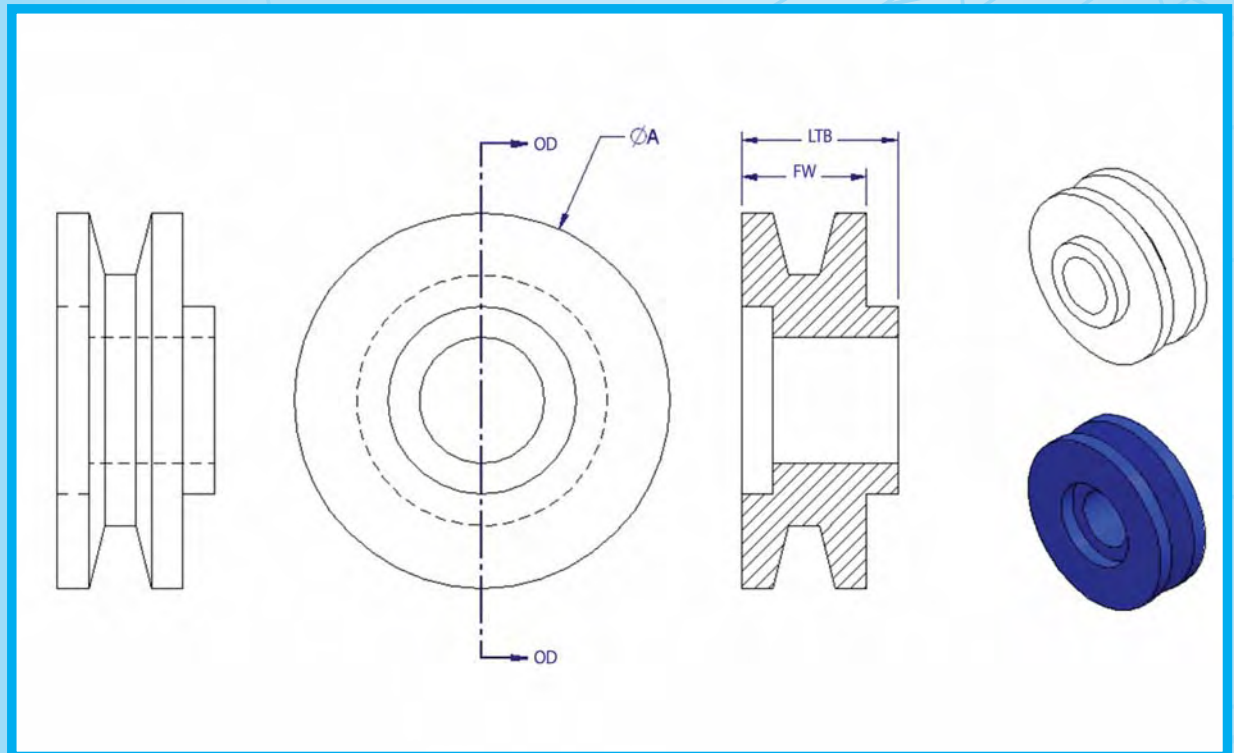


# V-Wheel Diagram and Dimensions



## V-Wheel Chart

| Section | V-Wheel Part# | OD | LTB    | Face Width | Bore Size                      |     |
|---------|---------------|----|--------|------------|--------------------------------|-----|
|         |               |    |        |            | With s/s axle & oilite bushing | MPB |
| A       | PCI-900S      | 3" | 1 1/8" | 1"         | 3/8" - 16 Thread               | 1"  |
| B       | PCI-910S      | 4" | 1 3/8" | 1 1/4"     | 3/8" - 16 Thread               | 1"  |



# Tools and Accessories



Item Number: PCT001  
Description: Triac Leister Gun  
120 volts and 220 volts available, please specify voltage when ordering



Item Numbers:  
PCT002LD: 1/4" welding rod tip  
PCT003LD: 3/8" welding rod tip  
PCT004HD: 1/2" heavy duty tip  
PCT005LD: O section  
PCT006LD: A section  
PCT007LD: B section  
Description: Welding Tips available for all welding rod and v-profiles.



Item Number: PCT011  
Description:  
45 Degree Router Bit



Item Number: PCT012  
Description:  
Flat Router Bit



Item number: PCT022  
Description:  
V-Trim Knife



Item Numbers:  
PCT 130 (30")  
PCT 148 (48")  
Description: Lug Square



Item Number: PCT510 – PCT580  
Description: Lug Press  
Standard sizes: 12", 26", 38", 54", 72", 80"



Item Number: PCT008  
Description: Router





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Simple.



Clean.

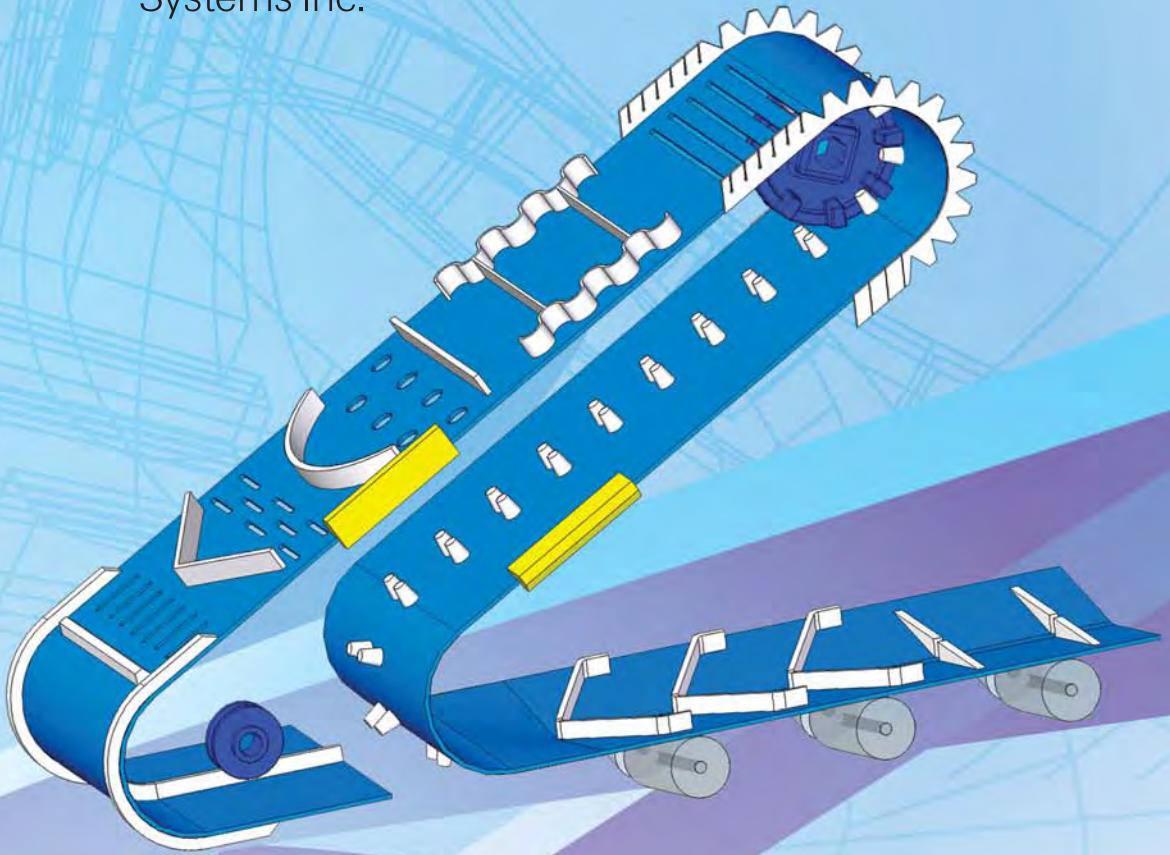


Customized.



# Cog-Veyor

Systems Inc.



To learn more about how Cog-Veyor can help strengthen your operation and meet your objectives, please contact your local distributor:

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Woodbridge Ontario Canada L4L 3T1  
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Toll Free: 1-888-337-BELT (2358)  
Fax: 416-743-7196  
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