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Identifying the Specification of Woven Mesh Metal Conveyor Belts

When it comes to metal conveyor belts, one of the most commonly used is wire mesh. This belting style has a wide range of applicability, from carrying delicate products through a cooling line to withstanding extreme temperatures like those found in metal sintering. Regardless of the application, a woven mesh belt is favorable because, among other benefits, it can be customized to offer a wide range of surface characteristics for any type of product or process.

Given its common use, wire mesh belts can look almost identical when running on a production line. When it comes time to replace or repair a wire mesh belt, it is important to know how to identify the specifications so you can match the belt to what you are currently using. Also, knowing the specification of your belt can help make it more efficient when re-ordering with your metal belt supplier.

Materials Needed:

- Measuring Tape or Ruler
- Calipers

The mesh designation is a series of numbers that uniquely define the wire mesh specification of your conveyor belt. The sequence of this series gives an indication of the belt model, number of woven spirals, pitch, wire gauge and rod diameter. In this example, we will be using our Balanced Weave mesh belt that has a specification of B-30-16-10-12 (shown in Fig. 1).

Model

The specifications sometimes start with the model identifier. In this case, "B", as shown in Fig. 1, indicates "Balanced Weave". Not all suppliers use a model identifier in their specifications. At Rexnord, we find it to be an effective way to help serve our customers to include it. If you don't know the model of your belt, determining the next four numbers in the belt specification will help you to determine what model is most appropriate for the application.

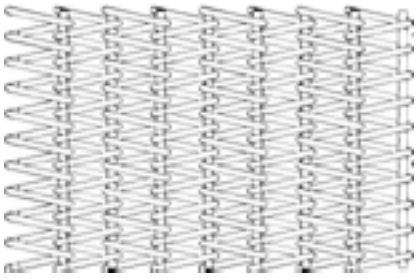

Fig. 1 — Balanced Weave wire mesh conveyor belt with specification B-30-16-10-12

Number of Spirals

The spiral count indicates how much open area the belt has. A low number of spirals per foot of belt length indicates a high open area, which is important for certain applications such as cooling.

To determine the number of spirals on your belt, skip the first spiral and begin counting each time the wire loops over the rod. In Fig. 2, you can see that, once we skip the first spiral, there are five loops in two inches of width. Therefore, there are 30 spirals in one foot of belt width.

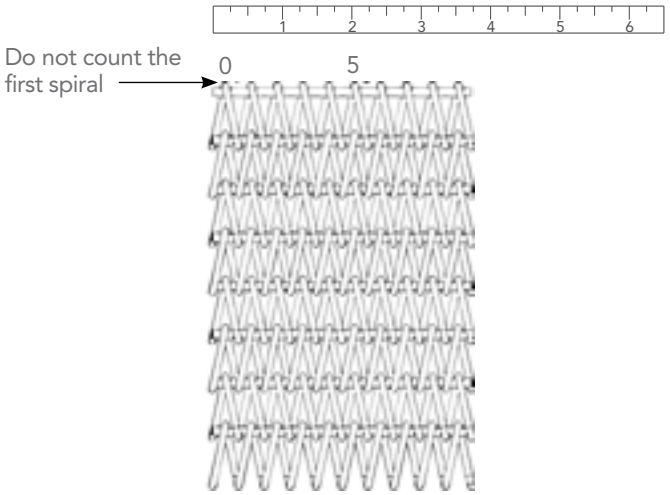

Fig. 2 — Spiral Count per Foot

Belt Pitch

By counting the number of rods per foot of belt length, the belt's pitch is identified. To determine the belt's pitch, skip the first rod and count each subsequent rod. In Fig. 3, you can see that there are four rods in three inches of length. Therefore, there are 16 rods in one foot of belt length, giving the belt a 1.33" pitch.

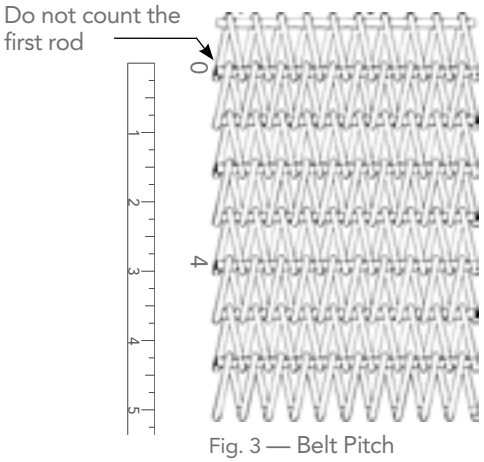

Fig. 3 — Belt Pitch

Rod Gauge

The rod gauge is important in making sure the belt is strong enough to convey the weight of your product load. Measure the rod's diameter with a calipers and match that with a gauge chart. Alternatively, you can take a photo of the rod next to a measuring tape and send the photo to your supplier to ensure you get an accurate measurement of the rod gauge. See Fig. 4 for an example of measuring the rod's diameter.

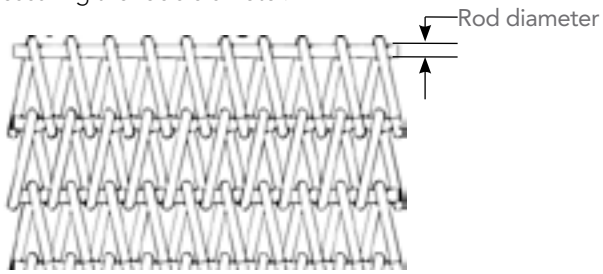

Fig. 4 — Rod Gauge

Spiral Gauge

The gauge of wire used in the spiral is an important piece to making sure the product you're conveying has proper support. A thicker gauge can convey heavy products more easily, while thing gauge wires are reserved for delicate product. Measure the wire's diameter by measuring across the width of the wire itself. See Fig. 5 for an example. Then, match your spirals' diameter with a wire gauge chart. Just as with the rod gauge, if you're unsure of how to get the exact gauge, you can always send a photo of the spiral end next to a tape measure.

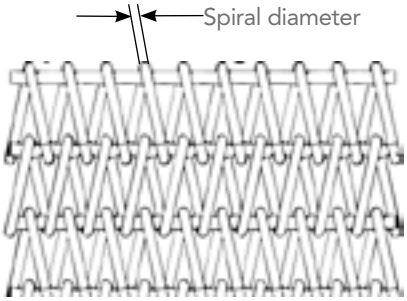

Fig. 5 — Spiral Gauge

Knowing how to identify the specifications of your woven mesh belt is a handy skill to have, and especially important when you're working to minimize downtime for installation or maintenance. Having the specification sequence on hand for your belt when working with your supplier helps to make assistance efficient and productive, getting you the solutions you need in a timely fashion.

For a detailed cost analysis of your application:

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