

Blade and Wire guide selection.

REV 0 7/25/2013

Selecting a radius blade for an adjustable strip diameter machine

Select the wire to measure. You want to work with a section of wire that has not been flattened by a machine or has been twisted.

Measure the wire.

Carefully strip back the end of the wire, do not remove the slug. Use a Caliper measure around the wire at several points. Do not flatten the wire with the Caliper. Keep in mind the wire may not be round you want to select the largest dimension.

Examine the insulation.

In general you want to select the largest size blade you can to prevent nicking the strands during the strip or due to the wire being out of round. Remember that the core diameter on the machine is adjustable so when you close the blades you can set them to come in very close to the conductor. The cutting on the sides of the wire is controlled strictly by the radius of the blade. It is common to have a gap between the blade and the conductor at the sides and the machine tears the insulation at these 2 points.

- For thin insulation you must have a blade that is sized very close the core diameter. This is to prevent the blade from skipping over the top of the insulation.
- For thick insulation you can normally can use blades that are sized larger. This allows you to process a greater range of wire deformations.
- For unusually hard insulations you may need to use blades sized close to the core diameter. This is to reduce the amount of force the machine needs break the slug free, preventing the wire from slipping in the belts or jaws.

Select a blade.

Get the blade catalog for your machine. Determine what series of radius blade you would like to use. Select a diameter that is larger by at least an amount shown in the list below. If you have a thicker insulation you may go larger in order to find an available diameter listed in the blade table.

- If the dimension is between 0 and .25 inches (0-6mm) choose a blade that is at least .003 (0.08mm) larger.
- If the dimension is between .25 and .5 (6-12mm) inches choose a blade that is at least .005 (0.13mm) larger.
- If the dimension is greater than .5 (12mm) inches choose a blade that is at least .008 (0.2mm) larger.

Selecting machine wire guides for a wire

Select the wire to measure. You want to work with a section of wire that has not been flattened by a machine or has been twisted.

Measure the wire.

Use a Caliper to measure around the wire at several points. Do not flatten the wire with the Caliper. Keep in mind the wire may not be round you want to select the largest dimension.

Select a guide CS326 or CS327.

For these machines you can buy individual guides or a guide set. Artos has documents available that list both individual guides and sets. The only thing to always keep in mind when selection guides, is that you have to know how your machine is configured. The documents have part numbers for every configuration of machine available (single blade, dual blade, etc).

The most important guide is the pivot tube. This controls the wire as it feeds across the blades and into the outfeed belt. If it is too large the wire will get caught on the blades or will not properly enter the outfeed belts. For the other guides in the machine, many times you can use a guide that is much larger than the wire. This allows you to run many different sizes of wire and only have to change the pivot tube.

To determine the guide size take your wire measurement, add to it the distance below, to get your desired diameter. Then look at the guide tube charts and choose the part number that is the desired diameter or larger depending on what guides are available in the chart.

- If the dimension is between 0 and .25 inches (0-6mm) choose a blade that is at least .010 (0.25mm) larger.
- If the dimension is between .25 and .5 (6-12mm) inches choose a blade that is at least .020 (0.50mm) larger.
- If the dimension is greater than .5 (12mm) inches choose a blade that is at least .030 (0.75mm) larger.