

CS326 SPECIFICATIONS

REV 3 3/24/2016

A. WIRE CUT LENGTHS:

1. Maximum: 1200' (30'46M)
2. Minimum: .25" (6,4 mm)

B. WIRE SIZE: (WIRE DEPENDENT)

Machine with standard wire guide kit

1. Maximum OD 0.5" (12,5mm) or 4AWG (25 mm²).
The maximum ID (inside diameter) of the guides is 0.53 inches (13.4mm)
2. Minimum: 30 AWG (0,05mm²).
The minimum ID of the guides is 0.060 inches (1.52mm)

Machine with large wire guide kit

1. Maximum OD 0.63" (16,0mm) or 2AWG (34 mm²)
The maximum ID of the guides is 0.69 inches (17.5mm)
2. Minimum: 30 AWG (0,05mm²).
The minimum ID of the guides is 0.060 inches (1.52mm)

C. STRIP LENGTHS:

1. Maximum: 2"(50,8 mm) Leading end 12"(304.8 mm) Trailing end 39" by 39" (*1m by 1m*)
2. Minimum: 0.01" (.254 mm)

D. MACHINE SIZE:

1. Length: 34" (863 mm)
2. Width: 24..5" (622 mm)
3. Height: 37..3" (952,5 mm)/
67.3 with cart (1709,4mm)

E. MACHINE WEIGHT:

1400 lbs. (182 Kg.) [packed weight]

F. Electrical

1. Power Supply: 115±10% or 230±10% VAC 47-63 Hz. Single Phase 0.4 kW (Nominal)
6A SCCR 2kA
2. Connection to Supply: Detachable cord
3. Protection Against Electric Shock: Grounded metal enclosure

G. AIR SUPPLY

This only applies for machines equipped with pneumatic options such as pneumatic pivoting blades, sensor, slitter or air blow off.

Average air requirement 3 cfm (85 L/m) with a peak of 5 cfm (142 L/m) 80 PSI (5.5 bar)

H. Environmental

1. Temperature: Operating 0°C to +45°C, Storage -25°C to +55°C
2. Relative Humidity: 30% to 95% (non- condensing)
3. Altitude: Up to 4000 ft. MSL (1200 m MSL)
4. Sound Level: 54 dbA quiescent 73 dbA automatic cycle

I. Maximum wire diameter for pivoting blade cutter head

There are two items that limit the wire diameter.

One is the offset distance between the cutting blade and the stripping blade. If the wire is too large in diameter the stripping blades will be partially inserted into the wire as the wire is cut. This damage will occur 0.50 inches from the tail end of the wire.

Any outside diameter less than **0.320** inches will not touch the blades.

For any wire greater than **0.459** the stripping blade will make contact with the stripping blade.

For wires in between these two dimensions use the following formula:

Max wire diameter = 2[Square root{(.23-R)² + R²}

R is the radius of the strip blade. This formula is for true radius blades, for tangential blades there will be slightly more clearance.

Of course this formula does not take into account the fact that the wire defects downward as the cut blade passes through the wire. This motion can force the wire into the blade even if it mathematically has clearance. Only wire testing can determine if this is going to be a problem.

The other item is the clearance around the pivoting blades. The maximum wire size you can have is 0.600. This is the point where the pivot blades will actually push against the wire while it is being stripped. For feeding there is clearance as long as the ready position is set for the maximum.

I. Length accuracy

For the CS326 without the wire measuring encoder.

Because of the wide variety of wires this machine can process we have to specify a general wire length accuracy of +/-1% for round wires. Most round wires however will run in the +/-0.25 to 0.75% range. The strip length accuracy is 1% or +/-0.012 inches, whichever is greater. These tolerances are the repeatability from one wire in a batch to the next.

For the CS326 with the wire measuring encoder.

Because of the wide variety of wires this machine can process we have to specify a general wire length accuracy of +/-0.5% for round wires. Most round wires however will run in the +/-0.25 to 0.5% range. The strip length accuracy is 1% or +/-0.012 inches, whichever is greater. These tolerances are the repeatability from one wire in a batch to the next.

Motor resolution and capability.

The strip is programmable in 0.00 inches (0.0mm) increments and the length in 0.00 inches (0.0mm) increments.

CS326 with belts has a motor resolution of 0.00088 inches

CS326 with wheels has a motor resolution of 0.00097 inches
CS326 encoder resolution 0.00177 inches

Factors affecting feed length accuracy.

Non- encoder machine

The physical interaction of the wire on the belts or wheels is the main cause of the tolerance on the overall length and the length of the strips. This interactions is influenced by the wear on the belts, the type of wire insulation, straightener tension, prefeeder tension, temperature and humidity. For the strip lengths another factor that comes into play is if the insulation stretches when the slug is pulled off. The length the strip will be dependent on how consistently the insulation on the finished wire relaxes back in position. Some wire will run with much more consistency and some wire will have more variance reaching the limits of the tolerance, it all depends on the physical properties of the wire. It should be noted that in the machine software that the overall wire length can be calibrated. In newer versions of software two features were added. The strip length can be calibrated and all the calibration values are stored with the part program so when the wire is recalled these values will be used.

Encoder machine

The physical interaction of the wire on the encoder wheel is the main cause of the tolerance on the overall length and the length of the strips. Some of these physical properties include insulations diameters that are not consistent or spongy insulations that the encoder wheel sinks into. For wires that are not round, such as a twisted pair with an outer jacket large variations could occur if wheel is moving up and down following the twist of the wire. For the strip lengths another factor that comes into play is if the insulation stretches when the slug is pulled off. The length the strip will be dependent on how consistently the insulation on the finished wire relaxes back in position. Some wire will run with much more consistency and some wire will have more variance reaching the limits of the tolerance, it all depends on the physical properties of the wire. It should be noted that in the machine software that the overall wire length can be calibrated. In newer versions of software two features were added. The strip length can be compensated and all the calibration values are stored with the part program so when the wire is recalled these values will be used.

Advantages of the encoder machine.

The factors that affect how the wire interacts with the belts or wheels is the wear on the belts, the type of wire insulation, straightener tension, prefeeder tension, temperature and humidity. These factors can vary from day to day, which require you to calibrate the length when starting a production run. The way the Artos wire feed encoder works is that it has a measuring wheel riding on the wire as it is fed through the machine. The motors are indexed according to the distance measured as opposed to indexing the motors only, without knowing how much the wire actually moved in the feed belts or wheels. The encoder option produces long wires much more consistently because the slight variations in wire tension that normally occur during the feed do not have an effect on the wire measure wheel. Another important factor is that once a particular wire is calibrated, when you recall it days later the first part will be accurate because the measuring encoder will cancel out all the effects that are listed above.

J. Cutter resolution

Software / mechanical resolution

The strip depth has a resolution of 0.01mm (0.001 inches)

Other:

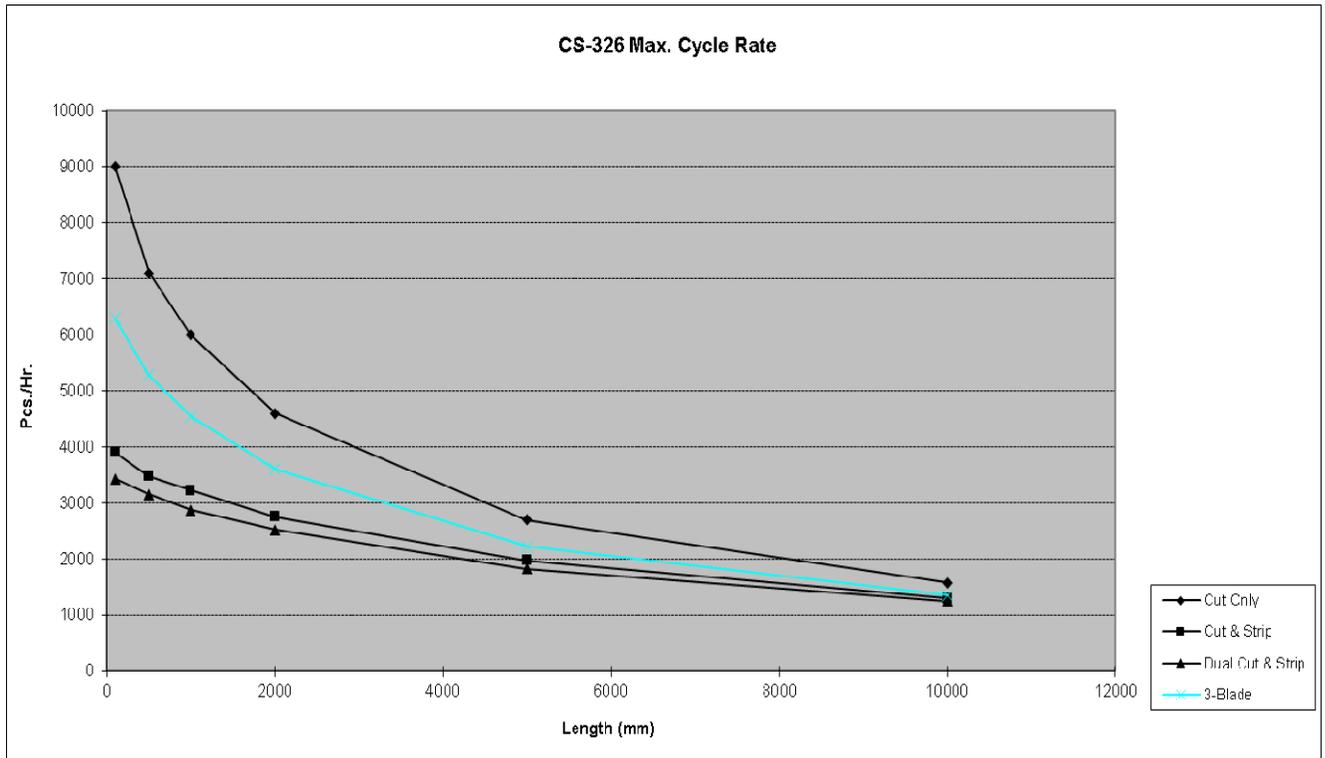
This equipment is designed for normal operation in a dry location where it is not likely to be Subjected to drip, splash or spray of water or other liquid.

PARTS PER HOUR RATINGS

CS-326 Production Rates, no pre or post process.

	Single	Dual
Wire Stripping Openning	1.5mm	3.18mm
Cutter Ready Position	2.5mm	5mm
Cutter Way-Back	.025mm	.025mm
Feed Rate	5.01M/s	5.01M/s
Acceleration Setting	Max	Max
Stripping Lengths	5mm	5mm
Pull-off Lengths	2.5mm	2.5mm

Wire Length	Cut Only	Cut & Strip	Dual Cut & Strip	3-Blade	3-blade-2 wires at a time
100mm	9000	3900	3425	6293	12586
500mm	7100	3475	3150	5278	10556
1000mm	6000	3225	2875	4545	9090
2000mm	4600	2750	2525	3610	7220
5000mm	2700	1975	1825	2220	4440
10000mm	1575	1300	1250	1348	2696



Actual Machine Output Will Depend on Material and Set-up

CS-326 with CD-11

CS-326 Production Rates with CD-11 coiler

5/8" by 5/8" Strip

Wire Length	CD-11
.9m (3 Ft.)	1090
3.0m (10 Ft.)	900
4.6m (15 Ft.)	810
7.6m (25 Ft.)	670
15.2m (50 Ft.)	470

5/8" by 5" Strip

Wire Length	CD-11
.9m (3 Ft.)	970
3.0m (10 Ft.)	810
4.6m (15 Ft.)	750
7.6m (25 Ft.)	620
15.2m (50 Ft.)	450