OVERVIEW

The **M700 Hard Wire Module (M700HW)** utilizes a pneumatic powered dual blade semi-rotary style cutter which can cut various sizes of hard alloy wire. The M700HW can be connected directly to the Control Module or to a Control/Feeder setup for automated material processing.

TECHNICAL DATA

Material Specifications:*
Minimum material size: 0.010" (0.25mm) OD
Maximum material size: 0.055" (1.40mm) OD
Minimum cut length: 0.250" (0.635cm)
Maximum cut length: 99,999.0 (in or cm)
Maximum programmable quantity: 99,999 pieces

Cut Tolerances:*
Material Length
Under 2" (5.08cm): ±0.010" (±0.025cm)
Over 2" (5.08cm): ±1%

** Specification is material dependent and/or dependent on de-reeling system*

Air Supply (Required):
90PSI (6.2bar)

Module Dimensions (L x W x H):
16" x 7.25" x 8"
(40.64cm x 18.42cm x 20.32cm)

Module Weight:
21lb (9.5kg)

PERFORMANCE

Supported Modes
Continuous Mode
Single Piece Flow Mode

Jobs/Batches:
Up to 100 programmable jobs;
1-20 batches per job

Feed Parameters:
Feed Rates: 10 selectable rates (0-9)

POWER
Voltage supplied by the Control Module

REQUIRED PARTS
Custom Bushings: (Material sample is required to properly size bushings)

OPTIONAL PARTS
Material Length Stop: IR3324

REPLACEMENT PARTS
Hard Wire Blade Set: IR3812
Pin and Spring Kit: IR3828

M700HW Hard Wire Module

BUSHING INSTALLATION

1. Turn off machine and disconnect from power supply and airline.
2. Choose the proper size bushing set for the material to be processed.
3. Decouple the HW Module from the system.
4. Manually rotate the cutter head forward to the cut position so the blades close. Hold in place.
5. To install the cut bushing, slide the bushing from left to right into the upstream, cut bushing sleeve with the external taper facing the cutting blades. Ensure the bushing is fully inserted and pressed against the HW cutting blades, and then tighten the set screw. Rotate cutter head back.

NOTE: The exit bushing comes pre-installed from the factory. If the bushing needs to be removed and reinstalled for any reason, with the cutter head still rotated forward, slide the bushing from right to left into the downstream retaining plate with the external taper facing the cutting blades. Ensure the bushing is fully inserted and pressed against the HW cutting blades, and then tighten the set screw. Rotate cutter head back.

MODULE ASSEMBLY

1. Turn off machine and disconnect from power supply and airline.
2. Open the clamping latch on the backside of the upstream module (either the Control or Feeder Module) by first loosening the thumb screw and then pulling the latch out and away from the module.
3. Align the HW Module's upstream interface connection (alignment pins and electrical connector) with the upstream module's downstream interface connection, and gently slide the HW into the upstream module so that it just begins to engage.
4. On the backside of the upstream module, push the clamping latch back in toward the module and it will draw the HW Module into the upstream module.
5. Once the clamping latch is in the closed position, fasten the clamping latch's thumb screw to the rear panel of the module.
6. Install the Endcap into the HW Module's downstream interface connection using the same technique.

NOTE: The Endcap (supplied with the M700C) must always be installed into the last connected module's downstream interface connection.

NOTE: All doors must be closed and the downstream Endcap installed for the system to function.

BLADE REPLACEMENT

NOTE: Each blade has two built-in cutting positions available and can be shifted to double its lifespan.

1. Turn off machine and disconnect from power supply and airline.
2. Decouple the HW Module from the system and remove the cut bushing.
3. Loosen the two 3/8" set screws which flank the cut bushing hole on the upstream face of the cut bushing sleeve, which will relieve the compression on the blades.
4. Remove the top chute and then the retaining plate.
5. Before proceeding to either shifting the blade position or replacing the blades, note orientation of upper and lower blades. It is recommended blades are removed and reseated one at a time to ensure proper installation and orientation.

Shift Blade Position

6a. To shift blades from first to second position (to extend life), carefully remove blade from pins and insert into the adjacent bushing hole. Repeat for the other blade.

Replace Blades

6b. To replace blades with a new set, carefully remove each blade and replace with new blades.
Note: Blade sets MUST be installed as a set and cannot be separated. The cut depth will also need to be calibrated (see below).

7. Replace retaining plate and top chute.
8. Tighten the two 3/8" set screws which flank the cut bushing hole to compress blades.

CAUTION: When handling or removing a cutting blade, be aware that it is extremely sharp and can cause serious injury if improperly handled.

CUT DEPTH

Fine Cut Depth Adjustment

NOTE: The cutter head comes pre-adjusted from the factory to cut most materials. Further adjustment should not be required unless the blades become worn or the material being cut is either a very fine or heavy gauge. Each blade cutting edge should bypass each other very slightly (a few thousandths of an inch).

1. Turn off machine and disconnect from power supply and airline.
2. Manually rotate the cutter head forward to the cut position so the blades close.
3. Use supplied wrenches and hold main 3/8" hex turnbuckle body with one wrench while loosening the 7/16" jam nuts with the other wrench.
4. Very slightly turn the hex turnbuckle body CW or CCW 1/8 of a turn at a time to increase or decrease the length of the turnbuckle (cut depth).
5. Once desired cut depth is set, use wrenches and tighten jam nuts against hex body.
NOTE: Increasing the length of the turnbuckle increases the cut depth and decreasing the length decreases the cut depth. Small adjustments have large impacts on depth and cut quality. If the material is cutting but deforming, the depth should be reduced. If the material isn't cutting through, the depth should be increased. Adjust as necessary to achieve optimal cut.

Cut Depth Calibration for New Blade Replacement

NOTE: If replacing the blades, the cut depth will also need to be calibrated after the new blades have been installed.

1. Turn off machine and disconnect from power supply and airline.
2. Decouple the HW Module from the system and remove the cut bushing.
3. Manually rotate the cutter head forward to the cut position so the blades close. Hold in place.
4. From the downstream side of the module, look through the exit bushing hole. There should be no light visible between the closed blades' cutting edges.
5. If there is light visible, follow the Fine Cut Depth Adjustment to increase the depth until the blades just meet and no light is visible. Turn the hex turnbuckle body an additional 1/8 turn CW, so the blades bypass each other just slightly. Use wrenches and tighten jam nuts against hex body.

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