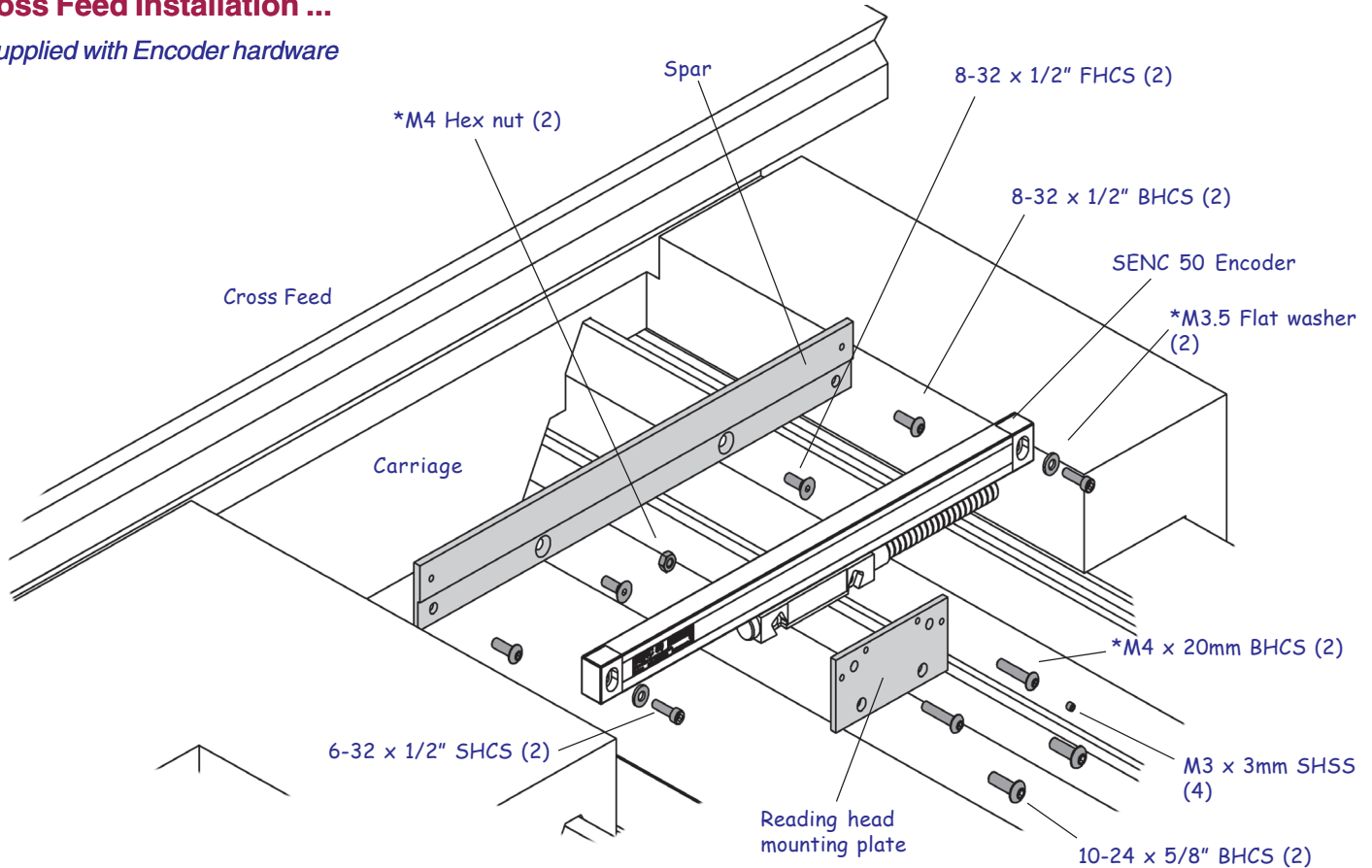


## Cross Feed Installation ...

\* Supplied with Encoder hardware



## Mounting Information...

These are application instructions for mounting the Cross feed "X" axis SENC 50 encoder.

### Before proceeding:

- Please read the instructions completely.
- Mount Z axis prior to installing the cross feed.
- Insure that the correct length encoder is being used for the total axis travel.
- Keep the reading head centered during installation.
- Clean the mounting surfaces.
- Save the alignment brackets with the Encoder Reference Manual after installation is completed.

## First Steps ...

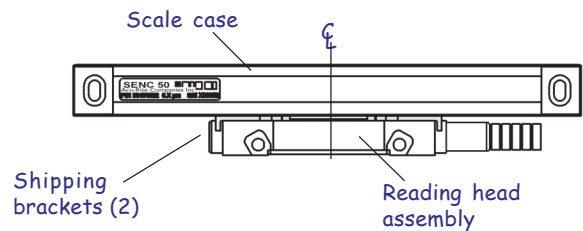
### Machine

- ✓ Move the cross feed to its center of travel.
- ✓ Mark the axis so that it can be re-centered easily.

### Encoder

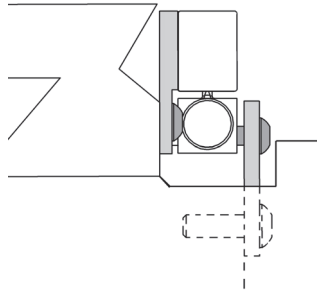
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head shipping brackets until instructed.

## Center reading head ...



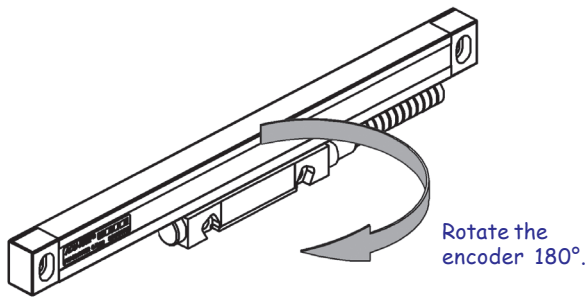
- Center the reading head on the scale case by sliding the reading head and brackets along the scale case to the center of the scale case.

## Orientation ...



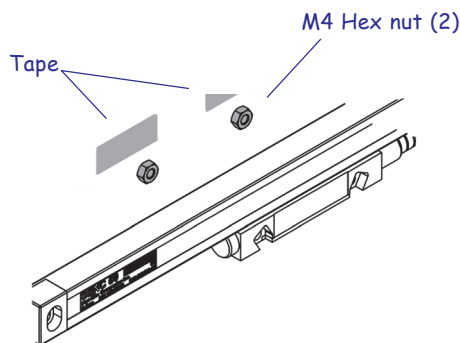
- These instructions will guide you through installing the encoder as shown in this view.

## Cable exit ...

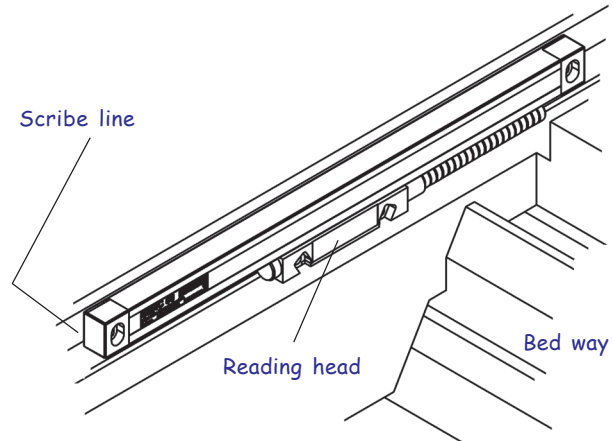


- Determine the cable exit direction before installing the encoder. Typically the cable exits to the back side of the lathe.
- To change the cable exit direction, rotate the encoder 180°. Encoder can be mounted on either side.

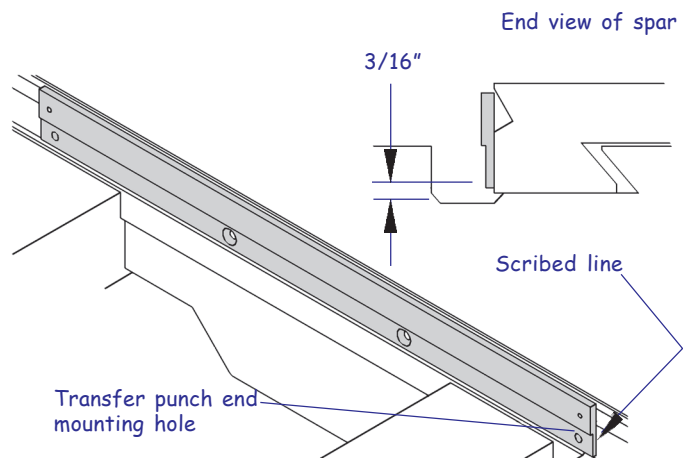
## Spar installation ...



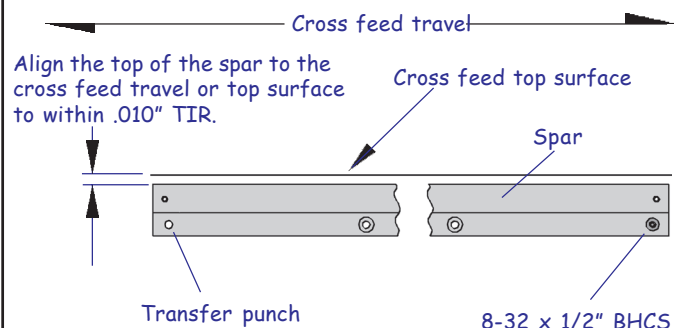
- Insert the M4 hex nuts into the back side of the reading head and retain in place with an adhesive tape.



- With the cross feed at its center of travel, hold the encoder to the side of the cross feed.
- Position the encoder so that the reading head casting is centered between the bed ways. Scribe a line on the cross feed marking one end of the scale case.

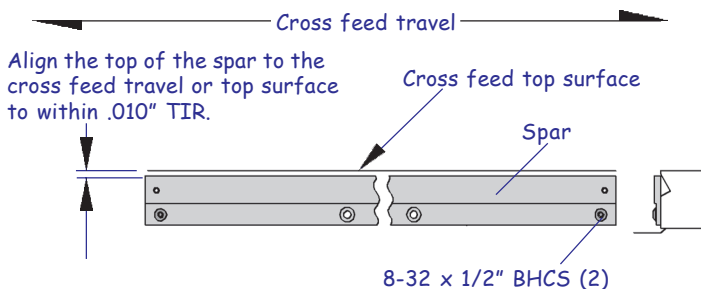


- Set the spar against the cross feed, aligned with the scribed line.
- Place the spar 3/16" above the ledge on the carriage and mark one end mounting hole on the cross feed.
- Move the cross feed for access. Drill and tap the hole location for an 8-32 x 1/2" deep.

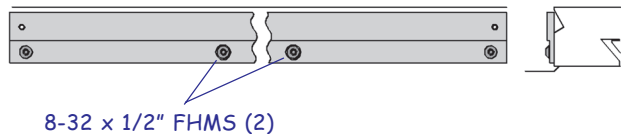


- Fasten the spar to the cross feed at one end.
- Align the top surface of the spar. (continue next page)

- Transfer punch the other end mounting hole and remove the spar.
- Drill and tap hole location for an 8-32 x 1/2" deep.

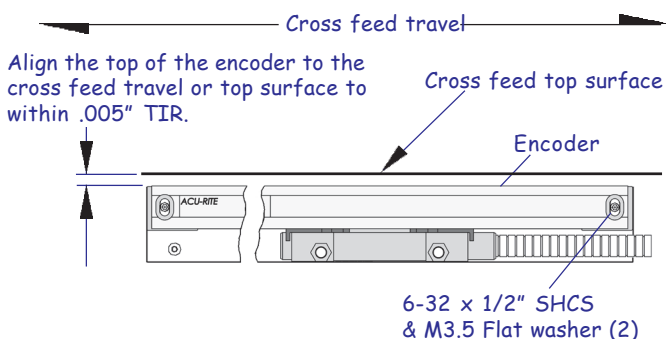


- Attach the spar to the cross feed.
- Align the top of the spar and secure in place maintaining alignment.

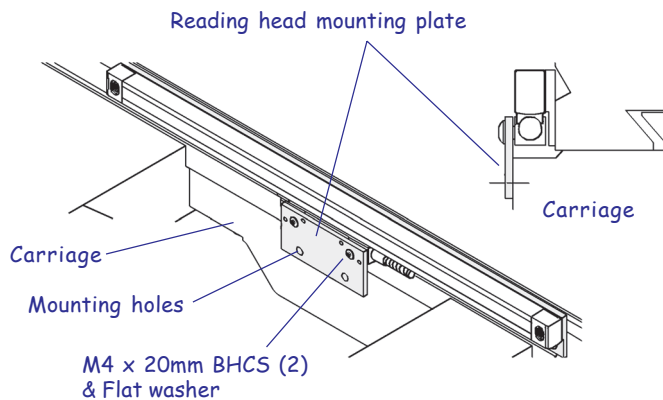


- Using the spar as a template, drill and tap the two countersunk hole locations for an 8-32 x 1/2" deep.
- Counter sink these holes to match the spar counter sink.
- Attach the spar with two 8-32 x 1/2" FHMS.

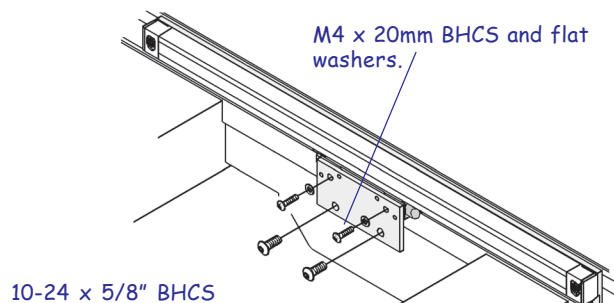
### Encoder installation ...



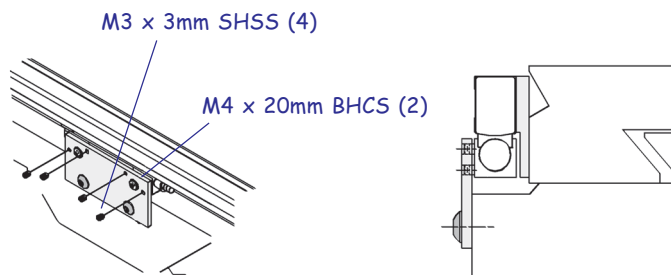
- Attach the encoder to the spar.
- Align the top of the encoder [note alignment of encoder is to within .005"].
- Secure in place maintaining this alignment.



- Return the cross feed to its center of travel.
- Attach the reading head mounting plate to the reading head but do not tighten.
- Hold the mounting bracket flush to the face of the carriage and transfer punch the two bracket mounting holes.
- Remove the mounting bracket from the reading head.
- Drill and tap hole locations for a 10-24 x 1/2" deep.

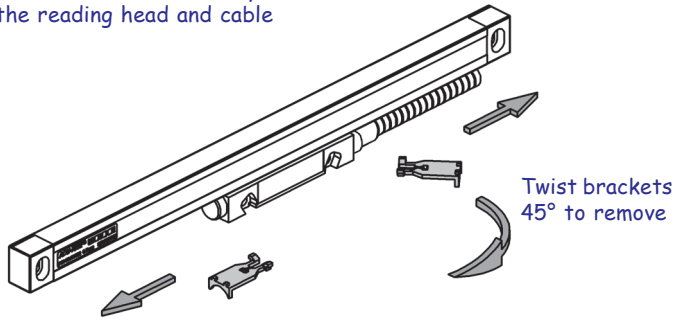


- Attach the mounting bracket to the carriage and align the bracket reading head mounting holes with the reading head. Secure bracket in place.
- Attach the reading head but do not tighten screws.



- Insert the four leveling set screws into the mounting plate.
- Set each screw by placing a .0015" - .003" feeler gage between the leveling screw and the reading head.
- Adjust each leveling screw until a slight drag is felt on the feeler gage. Align the reading head to the scale case to within .005" and secure the reading head by tightening the two M4 BHCS.

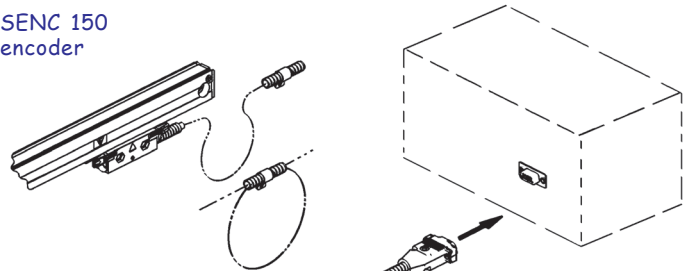
Slide brackets back away from  
the reading head and cable



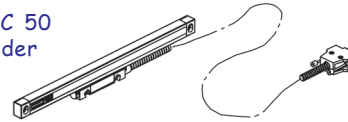
- Slide the shipping brackets away from the reading head. Gently twist to remove them from the scale case.
- Save the shipping brackets with the Encoder Reference Manual.

### Encoder button up ...

SENC 150  
encoder



SENC 50  
encoder



- With the longitudinal axis installation complete, route the cables providing sufficient slack loops for machine movement to the readout.
- Secure cables by fastening with clips or ties.
- Attach the encoder connectors to the readout.
- Complete the installation by following the steps in "Checking Your Installation" section in the encoder "Reference Manual".