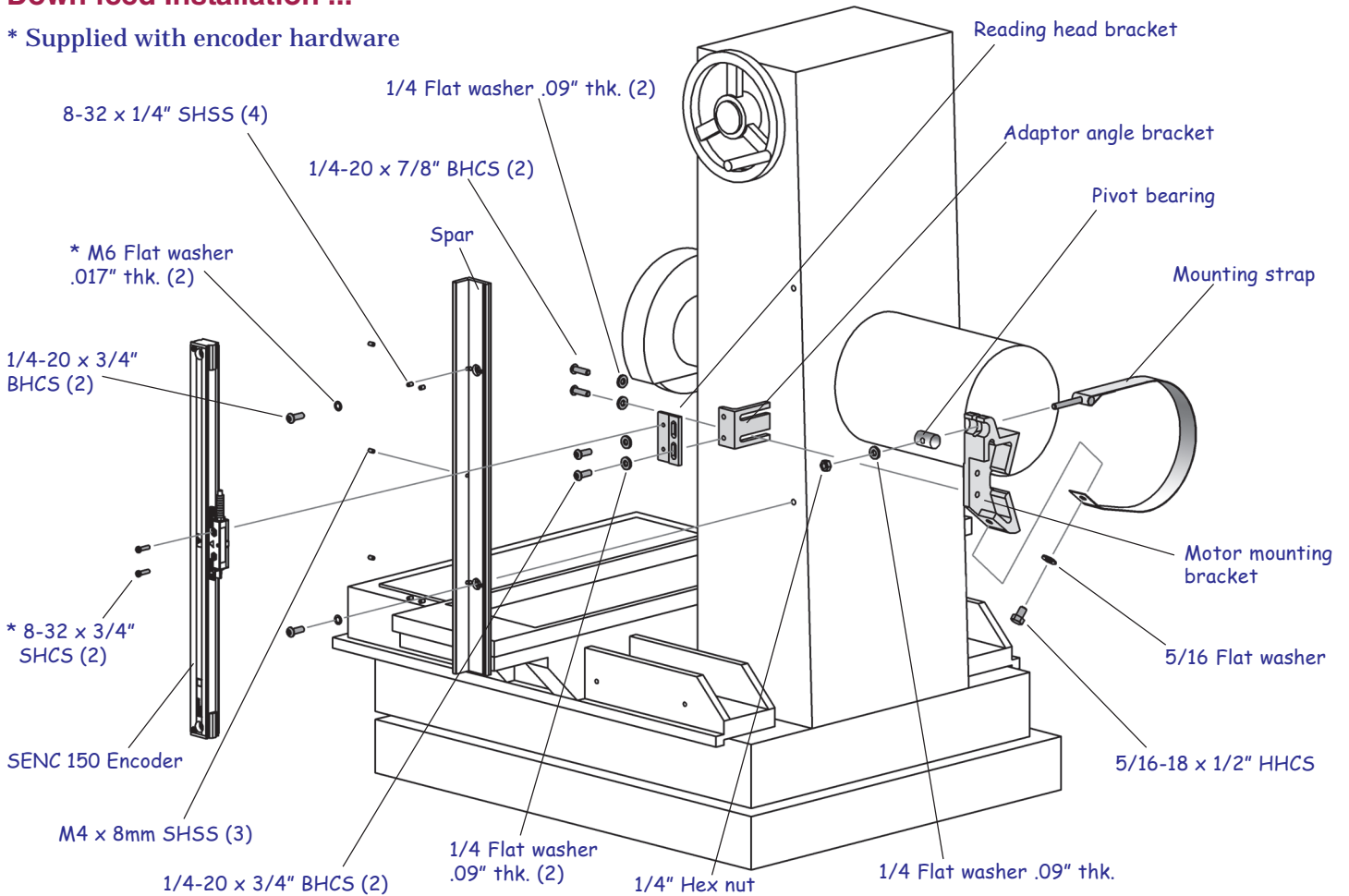


## Down feed Installation ...

\* Supplied with encoder hardware



## Mounting Information...

These are application instructions for mounting the Down feed "Z" axis SENC 150 encoder.

### Before proceeding:

- Please read the instructions completely.
- Insure that the correct length encoder is being used for the total 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 ...

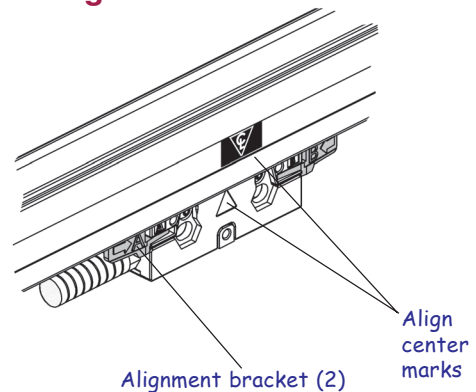
### Machine

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

### Encoder

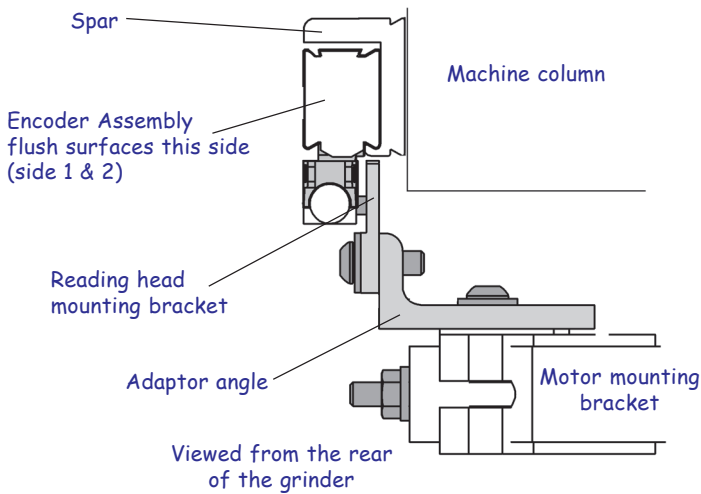
- ✓ Unpack encoder in a safe, convenient location.
- ✓ Do not remove the reading head alignment brackets until instructed.

## Center reading head ...



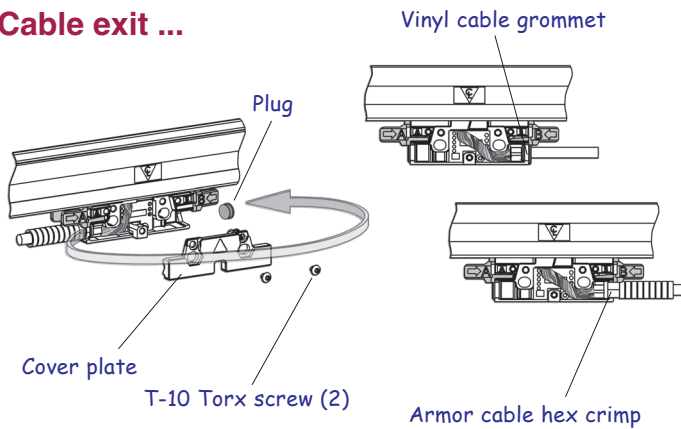
- Slide the reading head and brackets along the scale case until the center marks on the scale case and reading head are aligned.

## Encoder orientation ...



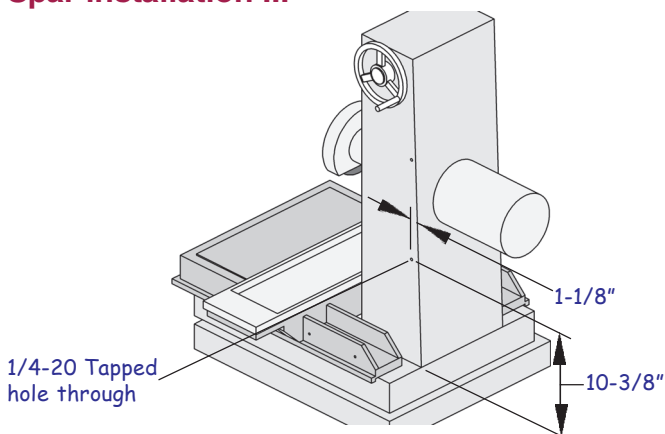
- These instructions will guide you through installing the encoder as shown in this view.

## Cable exit ...

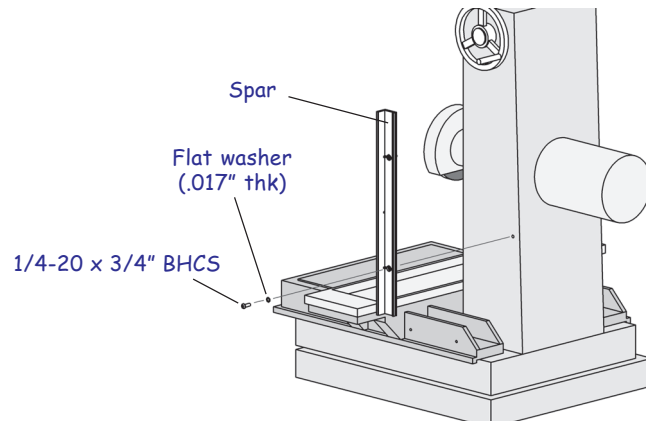


- Determine the cable exit direction before installing the encoder.
- To change the cable exit direction; remove the cover plate and rotate the cable 180°.

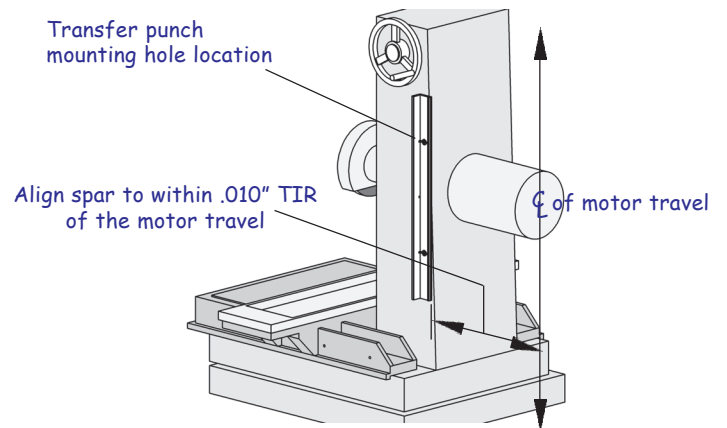
## Spar installation ...



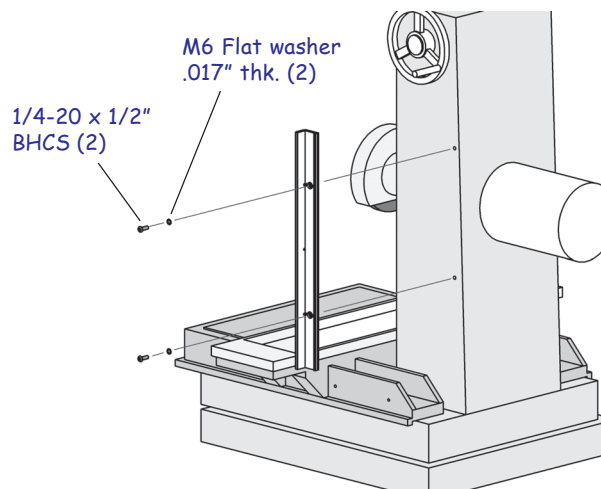
- Locate the mounting hole using the dimensions shown.
- Drill and tap for a 1/4-20 through.



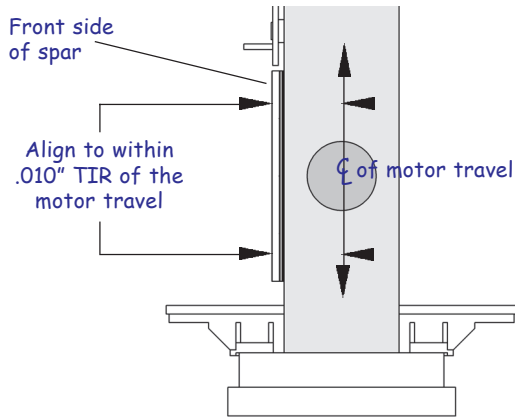
- Attach the spar to the column.



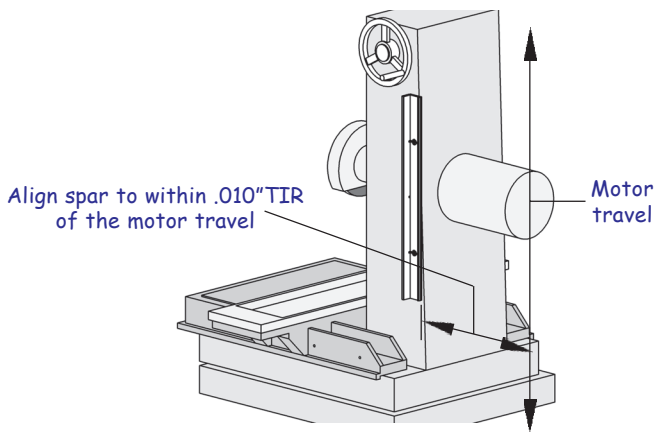
- Align the side of the spar to the motor travel.
- Transfer punch the second end mounting hole, remove spar, drill and tap for a 1/4-20 x 1/2" deep.



- Attach the spar to the column.

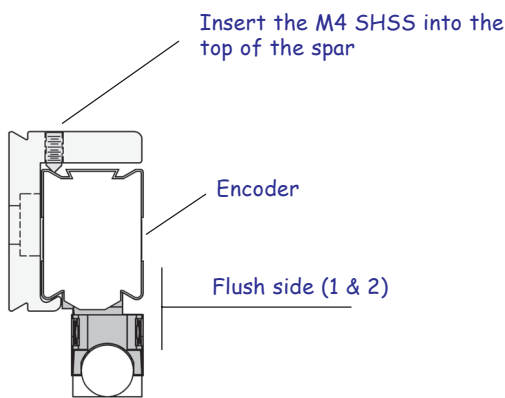


- Insert the four 8-32 x 1/4" SHSS into the spar (see exploded view on front page).
- Align the front of the spar to the motor travel, use the leveling set screws for adjustment.



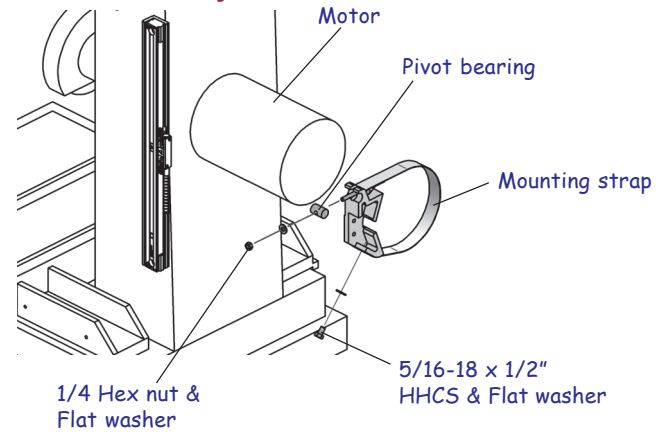
- Align the side of the spar to the motor travel.
- Secure the spar in place maintaining spar alignment.

## Encoder installation ...

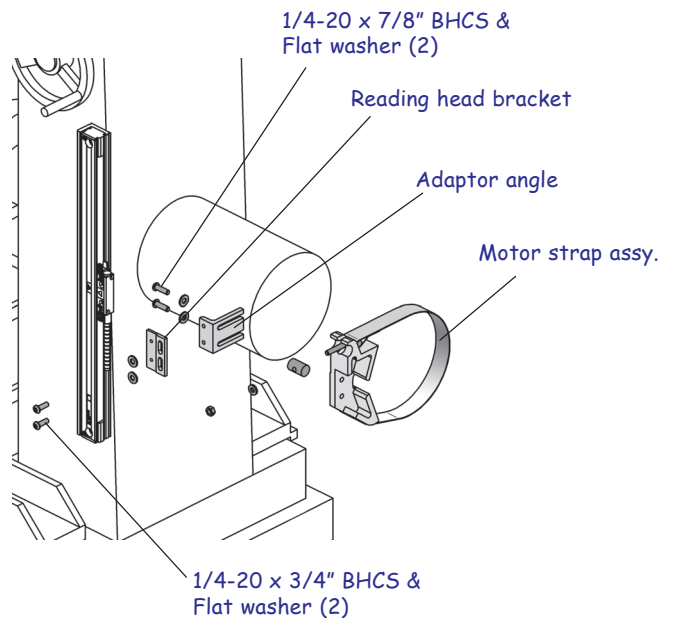


- Insert the encoder into the spar as shown, and center from end to end. Tighten the center set screw only.

## Bracket assembly ...

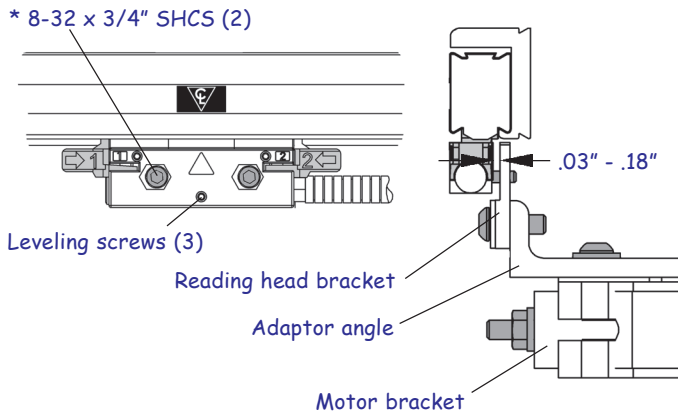


- Assemble the strap (threaded bolt end) to the bracket with the pivot bearing, nut, and washer.
- Thread nut approximately one third on to the strap bolt
- Hold the bracket on the motor and wrap the strap around the motor.
- Pull the strap tight over the lower end of the bracket and mark any excess for trimming.
- Remove the strap from the bracket and drill a 11/32" diameter hole on center a 1/2" from the trimmed end.
- Attach the strap to the bracket.



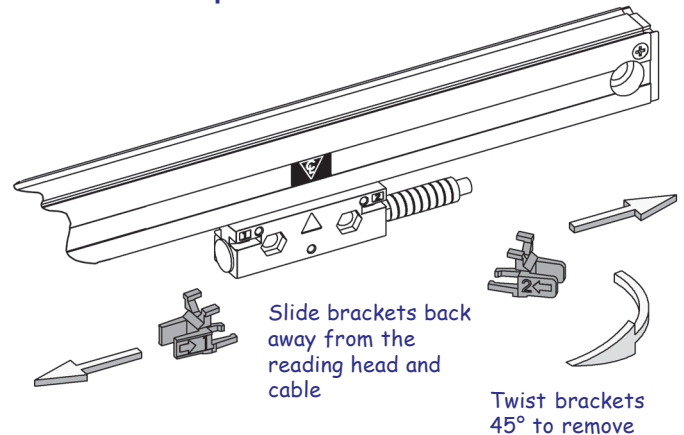
- Attach the assembly to the motor, but do not tighten.
- Attach the adaptor angle and reading head bracket to the motor mounting bracket assembly.
- With the motor and reading head centered, adjust the bracket assembly so that the reading head bracket aligns with the reading head mounting holes.

## Attaching the reading head ...

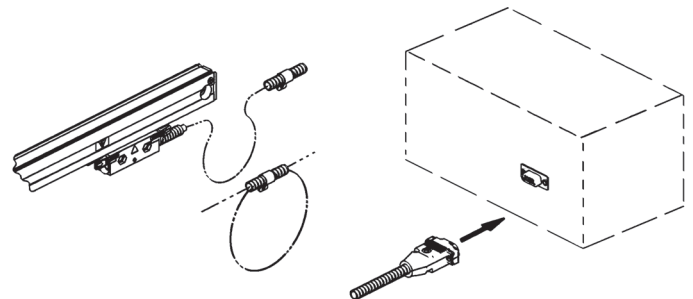


- Insert the \*8-32 x 3/4" SHCS, but do not tighten.
- There will be a gap of .03" - .18" between the bracket and the reading head.
- Insert and set each leveling screw by placing a .001" - .003" feeler gage between the set screw and the bracket.
- Adjust each set screw until a slight drag is felt on the feeler gage.
- **Evenly tighten** the two 8-32 SHCS.

## Encoder button up ...



- Use allen wrench from set screw adjustment to slide alignment brackets away from the reading head.
- Remove alignment brackets and save.
- Move the axis through its full travel. Confirm that the assembly does not interfere with the machine movement.



- 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 linear encoder connectors to the readout.
- Complete the installation by following the steps in "Checking Your Installation" section in the encoder "Reference Manual".