

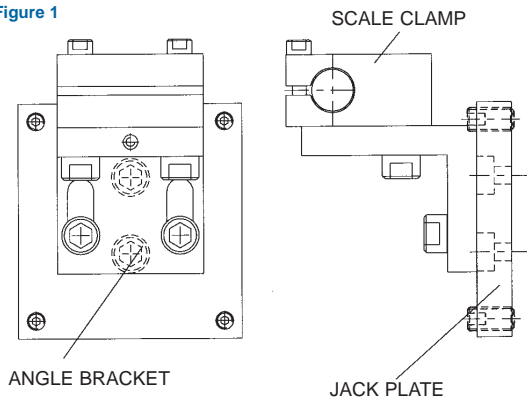
# LONG SCALE MOUNTING FOR LINEAR ENCODERS



## LONG SCALE MOUNTING Scales over 2500mm (100") travel

The Reader Head should be mounted as in Figure 2 (scale entry at the bottom).

Figure 1



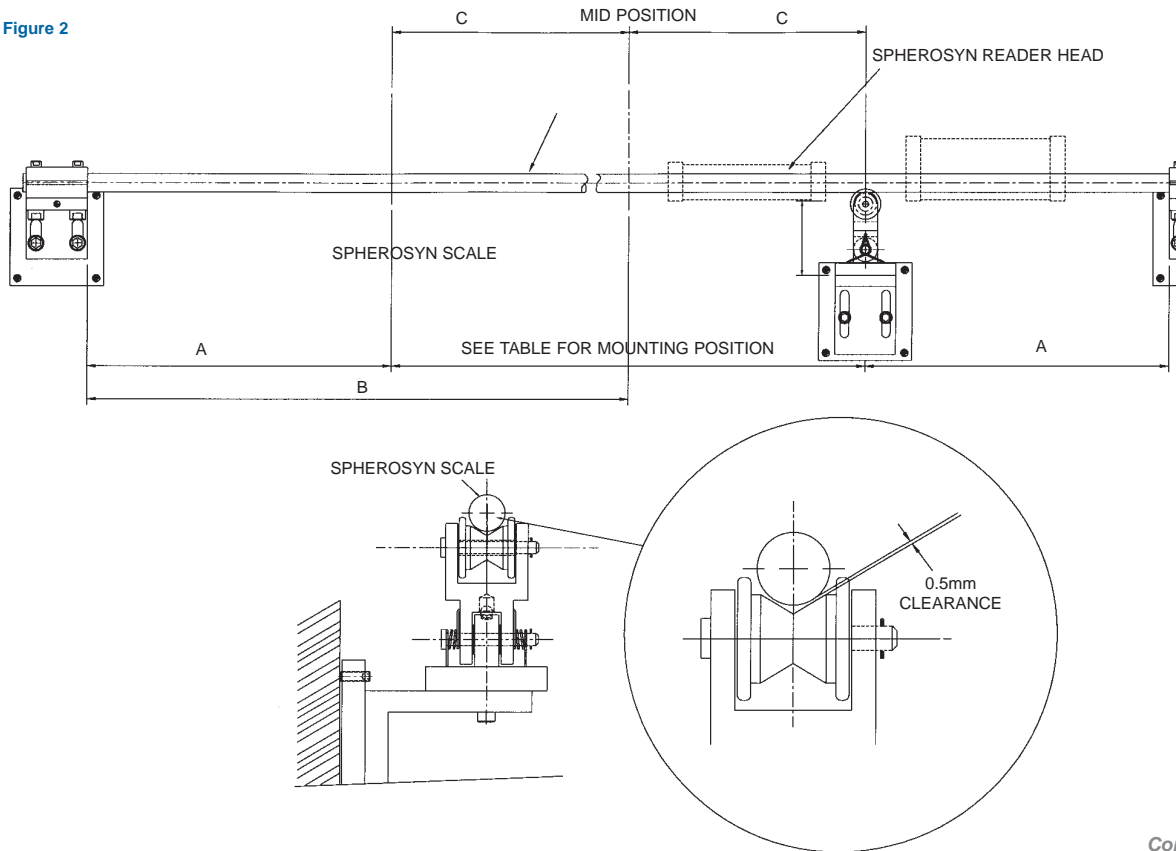
Traverse the machine to fullest extent of travel including hand winding past any electrical limits or trip dogs.

Insert the short blank length of Spherosyn tube into the Reader Head, allowing for a sufficient amount of scale to project from the Reading Head in order to fit the scale mounting brackets. Assemble the angle bracket to the scale clamp (Refer to Figure 6). The jacking plate is included in each bracket kit, this will only be required if the machine mounting face is not a machined surface. Slide the assembly onto the scale allowing approximately 10mm clearance from the end of the Reader Head.

Mark the position of the jack plate (if required) or the angle support bracket. Drill and tap the necessary fixing holes and assemble the bracket to the machine.

Remove the blank tube and the bracket assembly from the Reader Head. Drill and tap M8 x 18mm (USA 5/16"-18 x 3/4") fixing holes. Fit the jack plate (if required) and secure to the machine. Assemble the scale clamp and the angle bracket to the jack plate but do not secure. Traverse the Reader Head as near to the bracket assembly as possible. Slide the blank tube through the Reader Head into the scale clamp. Adjust the brackets into position and carefully tighten the screws. Check that the blank tube slides through the Reader Head and into the scale clamp smoothly without any fouling.

Figure 2



Continued overleaf...

# LONG SCALE MOUNTING FOR LINEAR ENCODERS



Remove the blank tube and traverse the machine to the full extent in the opposite direction. Remember the "full extent" is the absolute maximum travel up to the mechanical "dead stops".

Check the overall length of the actual scale and measure from the outside edge of the scale clamp already fitted to the machine and mark the position of the scale on to the machine.

Slide the Spherosyn blank tube into the Reader Head, assemble the remaining scale bracket assembly including the jacking plate (if required) and slide onto the tube.

Set the outside edge of the scale clamp level with the mark that indicates the overall length of the Spherosyn Scale and mark the fixing position for the bracket assembly.

For scales which are mounted in the horizontal position, spring loaded scale supports are included and should be positioned according to Table 1.

Once the locations for the supports have been determined, the Spherosyn Reader Head should be positioned in the location where the first support is to be fitted. Assemble the support unit including the jack plate if required. Mark the position for the fixing screws, drill and tap (M8 for the jack plate or M6 for the angle bracket). Ensure that the angle bracket has sufficient movement utilising the two slots to allow for adjustment in the vertical plane. It is important that the top face of the angle bracket is set to 58.5mm (2.3") from the bottom machined face on the Spherosyn Reader Head.

Table 1

Measuring Length (mm)	No off Scale Supports
2500	2
3000	2
3500	2
4000	2
4500	3
5000	3
5500	3
6000	3
6500	4
7000	4
7500	4
8000	4
8500	5
9000	5
9500	5
10000	6
10500	6
11000	6