

Spreader Bar

Installation Instructions

Overview

The Spreader Bar, Isco part number 60-3004-110, is an adjustable-length tube (Figure 1) that provides a way to suspend an Isco Flow Meter or 2100 Series Module inside a manhole. Working in much the same way as a turnbuckle or the familiar shower curtain rod, the spreader bar is held in place inside the manhole by pressure and friction caused by tightening the ends of the bar against the walls. The Spreader Bar is adjustable from 22½" to 48". Installation of the Spreader Bar **does** require entry into the manhole.

Adjustments

The Spreader Bar is installed by making two adjustments to the bar's length. The bar must be sized to span the full width of the manhole above or below the taper. Do not install in the tapered area of the manhole (Figure 2).

The bar is first roughly sized by pressing in each metal button on the center section of the bar, one at a time. This lets you pull out the extender sections of the Spreader Bar from the center section. Next, pull the extender sections of the bar out until the length of the bar is as close as possible to the width of the manhole. Lock in this length by letting the metal buttons snap back through the nearest holes.

Then, unscrew the ends of the bar by grasping one rubber foot and pressing the bar against the opposite wall. Turning the center section will advance the screws on each end. If more than eighteen turns are required, the button should be pushed on one side and the extender bar moved out to the next hole in the center section.

When the bar fits tightly enough against the walls to support itself, grasp the center section with both hands

and turn it in whichever direction tightens it against the walls. You will begin to see the rubber feet flex. Tighten the bar one more turn.

The installation should be completed with the holes and the buttons pointing down to prevent water from getting inside the tube. **Do not tighten** to the point where the bolts in the rubber feet bottom out against the walls, or you will risk breaking the bushings inside the extender tubes. The flow meter or 2100 Series module may now be suspended from the spacer bar.

Maximum Suspended Weight Specifications

Maximum suspended weight specifications for the Spreader Bar are **90** pounds with the bar expanded to **33"** and **60** pounds with the bar expanded to **48"**.

⚠ WARNING

The Spreader Bar is not designed to support the weight of a person or a sampler. Use the bar only to support an Isco flow meter or 2100 Series module and its battery. Do not use the Spreader Bar to support yourself when entering or exiting the manhole. Serious personal injury could result if the Spreader Bar gives way and you fall into the manhole.

⚠ CAUTION

Damage may occur if the bar falls from a weak mounting surface. Do not install the Spreader Bar in older brick-lined manholes. The pressure of the bar against the bricks could cause them to break loose from the mortar, dropping the Spreader Bar and flow meter to the bottom of the manhole.

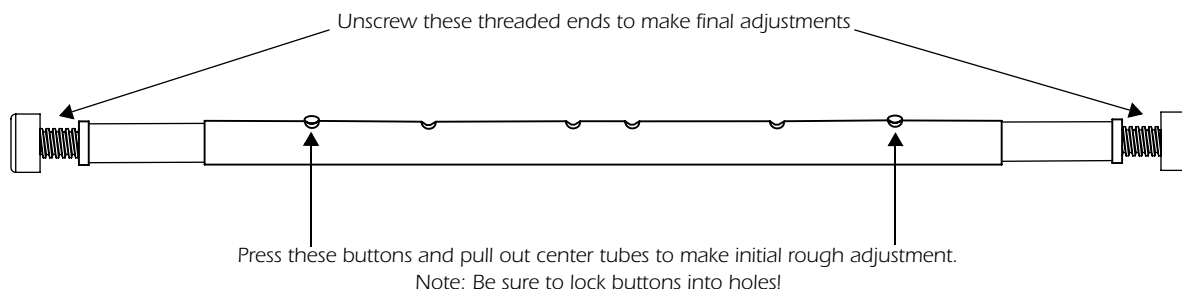


Figure 1: Spreader Bar

Flow Meter Mounting Plate

Isco recommends the use of the **Flow Meter Mounting Plate**, Isco part number 60-3004-116, a companion product to the Spreader Bar, to suspend the flow meter. This plate, which is screwed to the back of the flow meter, suspends the unit vertically from the Spreader Bar. It also allows the flow meter to be lifted from the manhole with the same tool used to remove the manhole cover.

Ultrasonic Cable Clamp

Also available for use with the Spreader Bar is the **Ultrasonic Cable Clamp**, Isco part number 60-3004-129, which attaches to the Spreader Bar and provides a stable, secured suspension for the ultrasonic transducer over the flow stream. 

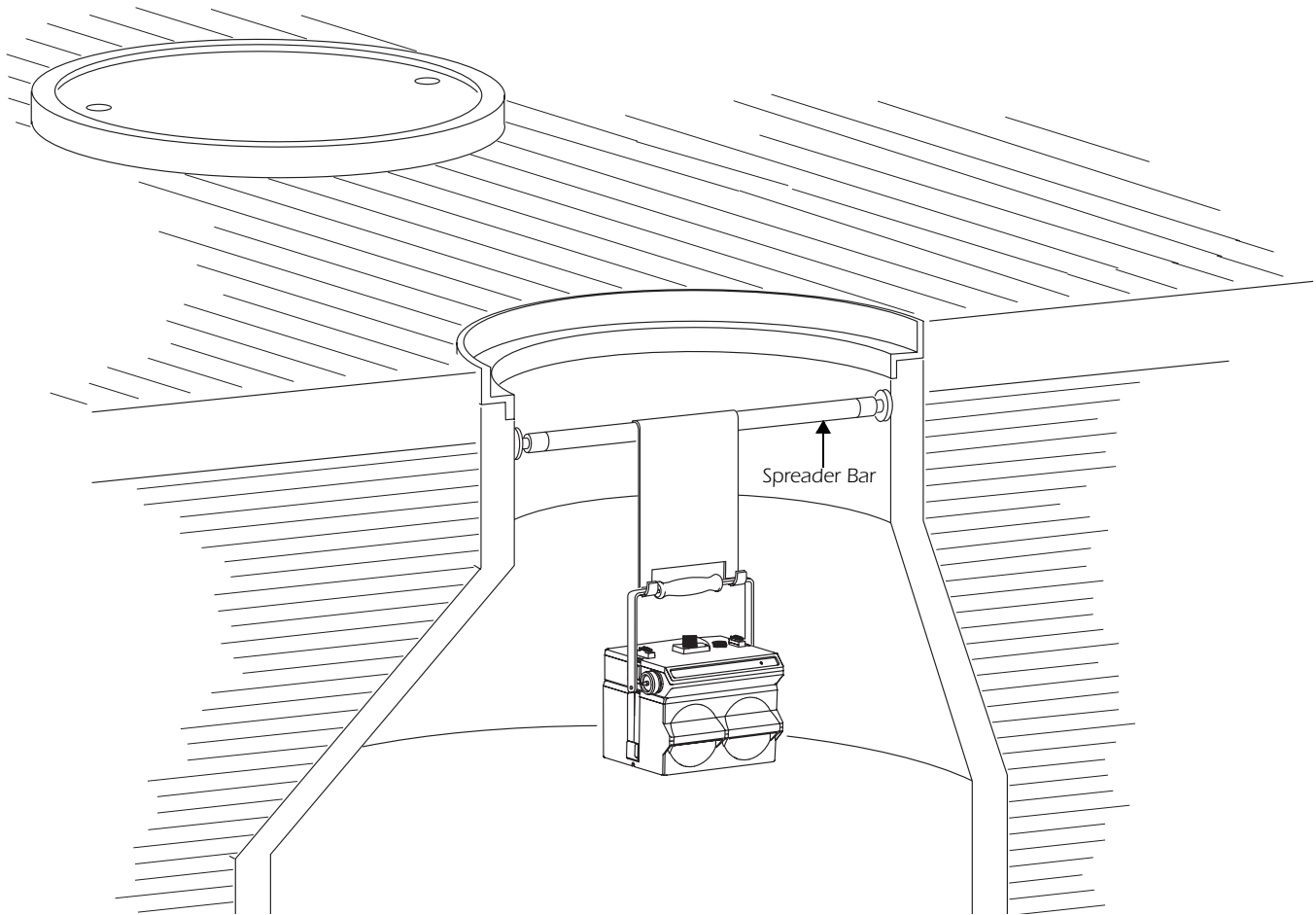


Figure 2: Spreader Bar Installed in Manhole

© Copyright 1990, 2003 Revision D, April 30, 2003

Isco, Inc.

www.isco.com

Isco, Inc. USA ♦ Toll-free: (800) 228-4373 ♦ Phone: (402) 465-0231 ♦ Fax: (402) 464-0318 ♦ e-mail: info@isco.com
Isco, Inc. Europe (Germany) ♦ Phone: +49 6078 786-0 ♦ Fax: +49 6078 786-88 ♦ e-mail: info@stip.de