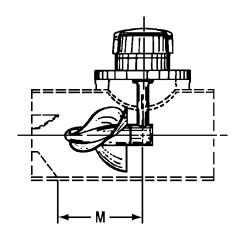


## 10"-72" MAIN LINE WELDING SADDLE METER SADDLE CUTOUT & STRAIGHTENING VANE INSTRUCTIONS FOR ML19, ML20, ML21





METER & PIPE SIZE	"M" DIM.
10"-12"	10"
14"-20"	10"
24"-54"	13 1/2"
60"-72"	22"

- 1. POSITION the welding saddle onto the pipe. Scribe line around the inside edge of the welding saddle onto the pipe. Remove the saddle and make the saddle cutout, following the scribe line.
- 2. BURRS, SLAG, AND ROUGH EDGES should be removed from the inside and outside of the cutout before attempting to weld the saddle into place.
- 3. WELD SADDLE onto pipe, making certain that it is centered over the cutout section. Make certain that no part of the pipe protrudes past the inside edge of the welding saddle. Tack weld the saddle to the pipe in several places prior to welding a continuous bead around the saddle.
- 4. BOLT-IN STRAIGHTENING VANES should be installed inside the pipe in the following manner:
  - A. HOLD the vanes on the outside of the pipe with the trailing edge of the vane a distance upstream from the centerline of the drop pipe as indicated on the table above ("M" dimension). Vanes must be parallel to the center line of the pipe and should be equally spaced radially 120° apart.
  - B. MARK the pipe where the vane bolts will protrude from the line.
  - C. DRILL holes as required in the pipe to allow the bolts from the vanes to protrude.
  - D. INSERT the vanes into the pipe through the saddle cutout, and hold vanes in position with the bolts protruding through
  - E. SECURE the vanes with the nuts and washers supplied with the vanes. Place the rubber side of stainless/rubber washers against the pipe and brass washers between the nut or bolt head and stainless washer. Threaded studs can also be welded to the pipe if desired. If welding, do not use washers.

NOTE: The 24"-72" are not supplied with nuts, bolts and washers.

NOTE: The vane bolts can be welded to the pipe if desired for a permanent installation.

F. METER HEAD ASSEMBLY can now be attached to the welding saddle. Make certain the flow arrows on the meter head corresponds with the flow through the line. Make certain that the meter head o-ring or gasket is in place before securing the meter head bolts.