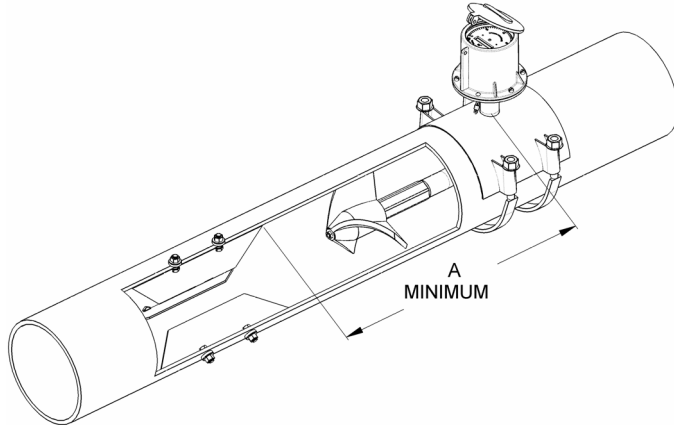


INSTALLATION INSTRUCTIONS FOR BOLT-IN VANES

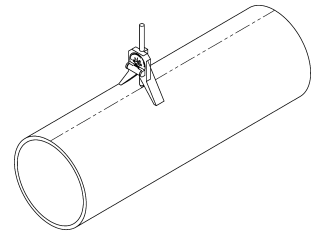
I. Installation Procedures

1. Determine the locations of the vanes on the outside of the pipe. For use with bolt-on saddle meters, the distance (A) between the trailing edge of the vane and the centerline of the hole-cutout is indicated on the table below. Vanes must be parallel to the center line of the pipe and should be equally spaced radially 120° apart.



| SADDLE METER SIZE | "A" DIMENSION |
|-------------------|---------------|
| 4" | 6-5/8" |
| 6"~16" | 14" |
| 18"~38" | 16" |
| 42"~60" | 20-3/8" |

2. Establish the centerline of the pipe by using a centering tool.
3. Mark the pipe where the vane bolts will protrude from the line.
4. Drill holes as required in the pipe to allow the bolts from the vanes to protrude. The hole diameters are 7/16" for 4" through 14" meters and 9/16" for 16" through 36" meters.



5. Insert the vanes into the pipe through the saddle cutout, and hold vanes in position with the bolts protruding through holes.
6. Secure the vanes with the nuts and washer supplied with the vanes. Position the vanes inside the pipe with the bolts protruding through the vane mounting bolt holes. Place sealing rubber washers over each bolt against the outside of the pipe. Then place the stainless washer and the vane mounting nut. Secure nuts to hold the vanes to the pipe (approx. 60ft./lbs torque). The vanes can be welded to the pipe if desired, however the washer should not be used.
CAUTION: Remove the meter assembly before welding.

