

Selection of the Measuring Point page 1



Select the measuring point so that the sound waves from the transducers propagate the pipe horizontally.

(Solid particles are deposited on the bottom of the pipe, gas pockets can develop at the top.)



Correct



Incorrect

Free inlet or outlet pipe sections

Select the measuring point at a location where the pipe cannot drain out.



Correct



Disadvantageous



Correct



Disadvantageous

Vertical pipe

Select the measuring point at a location where the liquid flows up.

(Pipe completely filled)



Correct



Disadvantageous

Selection of the Measuring Point page 2



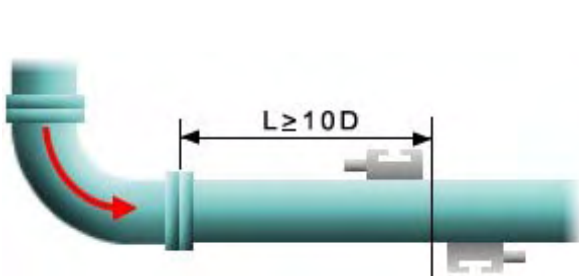
Distances between Measuring Point and Disturbance Source

In the following examples, recommended straight inlet and outlet pipe lengths are given for different types of flow disturbance sources to assist in selecting the correct measuring point.

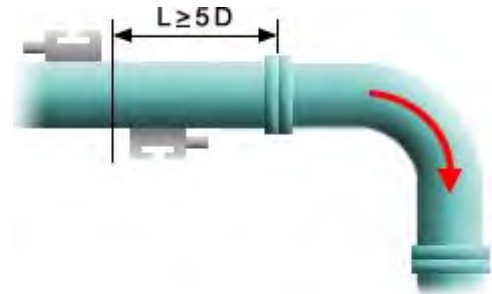
D = Nominal pipe diameter at measuring point

L = Recommended distance

Disturbance source: 90 °-elbow

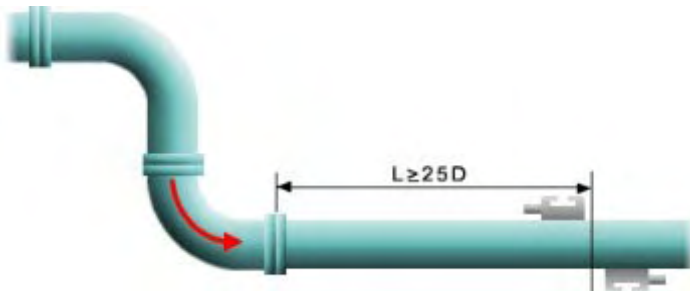


Inlet $L \geq 10D$

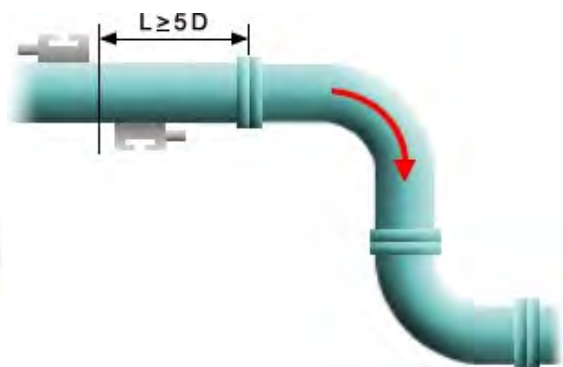


Outlet $L \geq 5D$

Disturbance source: 2 x 90 °-elbows in one plane

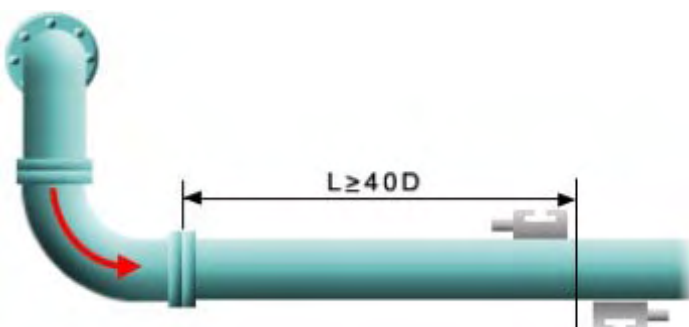


Inlet $L \geq 25D$

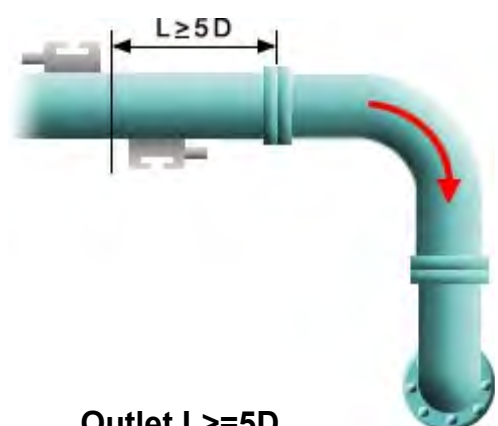


Outlet $L \geq 5D$

Disturbance source: 2 x 90 °-elbows in different planes



Inlet $L \geq 40D$

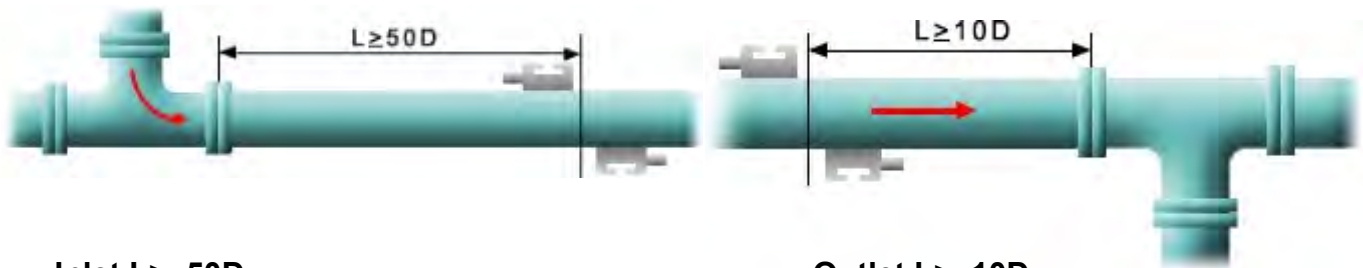


Outlet $L \geq 5D$

Selection of the Measuring Point page 3



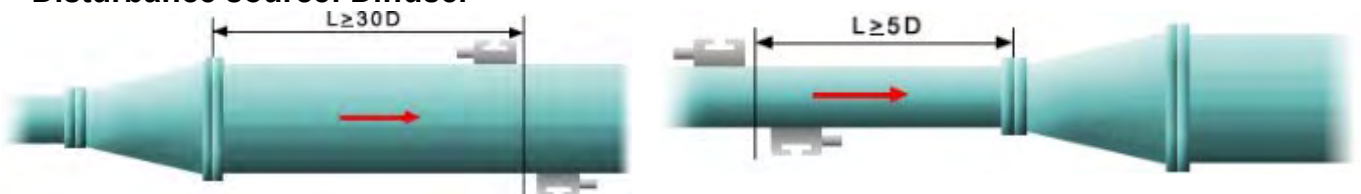
Disturbance source: T-section



Inlet $L \geq 50D$

Outlet $L \geq 10D$

Disturbance source: Diffuser



Inlet $L \geq 30D$

Outlet $L \geq 5D$

Disturbance source: Reducer



Inlet $L \geq 10D$

Outlet $L \geq 5D$

Disturbance source: Valve



Inlet $L \geq 10D$

Outlet $L \geq 40D$

Disturbance source: Pump



Inlet $L \geq 50D$