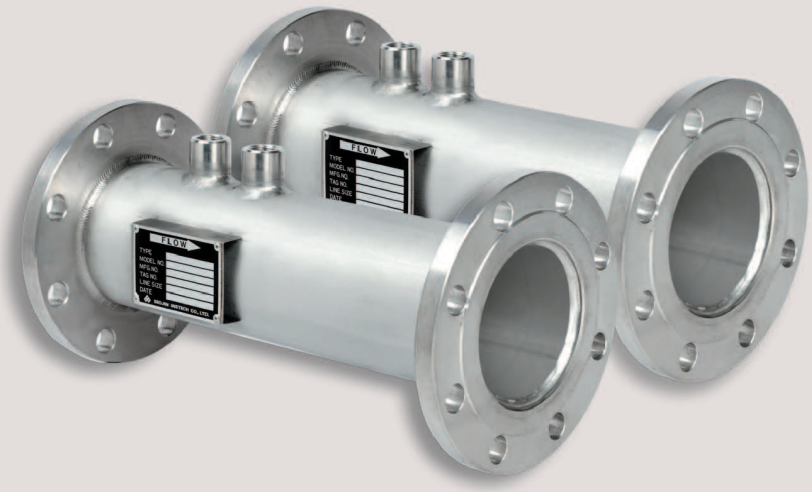
# Model CDP

## Cone Type Flowmeter

### Introduction

The Cone is a differential head flowmeter consisting of a circular cone placed in the center of a pipe section and two pressure taps. The upstream pressure tap is placed at a point where flow is undisturbed by the cone, and the downstream tap at the end of the cone facing downstream. The liquid or gas flows through the annular gap formed between the pipe wall and the cone, inducing a diffierential head that is proportional to the flow rate.




The Cone Type Flowmeter is supplied as a spool piece to be installed between two flanges. Principal advantage of this flowmeter is in that it does not require a long straight section of pipe upstream of the meter.
In most cases pieces of pipe 3x diameters long placed upstream and downstream of the spool piece assure accurate and repeatable measurement of flow rates.
This important feature, unique to the Cone Type Flowmeter, results from the fact that the cone reshapes the incoming flow field at the annulus, and an accurate flow rate measurement does not depend on the fully developed turbulent flow profile as required for instance by an orifice flowmeter. This feature can significantly contribute to the efficient utilization of plant space for piping layout.

All Cone Type Flowmeters are supplied with calibration certificates.

## Operating Ranges

- Pipe diameter : 2 - 36 inches
- Accuracy : +/- 0.5 - 1.0% of rate
- Repeatability : +/- 0.2%
- Rangeability : 15:1
- $\beta$ ratio : 0.45 - 0.85
- Discharge coefficients : 0.70 - 0.85 typical
- Pressure : 600 psig max
- Temperature : 700 °F
- Permanent Pressure Drop : approximately 20% of the differential

## Application

Most liquid and gas

## Material of Construction

Spool piece : Carbon steel or Stainless steel
Cone : Stainless steel (316SS)
Other materials available.

## Ordering Informations

### ■ Cone Type Flowmeter

please send your order or inquiry to the factory with the following information:

- Type of fluid :
- Operating pressure range :
- Operating temperature range :
- Operating flow range :
- Maximum pressure differential @ specified flow :
- Maximum allowable pressure drop @ specified flow :
- Pipe size and schedule :
- Flange rating :
- Spool material :
- Cone material : Stainless steel 316 (standard)

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