



# Flow Conditioner

## Description

The Flow Conditioner is installed upstream of a flow meter to nearly eliminate the costly effects of swirl, turbulence and other flow disturbances caused by pipeline obstructions, installation effects and/or valves. This economical device significantly minimizes measurement disturbance and uncertainty by straightening and smoothing the flow to ensure a fully developed flow profile is produced prior to the point of measurement. The plate-type conditioner is available in a wide range of sizes and provides equally impressive results on both gas and liquids with no upper limit on the Reynolds number. Tube bundle type flow are also available. Flow Conditioners are used for all liquid and gas flow applications to restore flow profile symmetry and eliminate distortion. They can eliminate up to 80-90% of pipeline swirl. Flow Conditioners help flow meters become even more accurate providing higher reproducibility and lower uncertainty.

## Common Materials

- Carbon Steel
- 304 / 316SS

## Other Available Materials

- Aluminum
- Duplex S/S
- Hastelloy B & C
- Monel
- 321 SS

## Specifications

**Line Size:** 2 to 48 inches. Larger sizes available.

**Fluid Types:** Natural gas, Air, Methane, Light Hydrocarbons, Crude Oil, Water, and Liquids

**Performance:** Applicable flow standard

**Max. Pressure Rating:** ANSI 1500

**Install Types:** Flanged, Weld-in

## Applications

- Liquids with suspended solids
- Chemical and Petrochemical industry
- Pulp and paper industry
- Mining, oil, gas and refineries
- Natural Gas, Methane, Air
- Water, Light hydrocarbons

## Special Features

- Can eliminate up to 80-90% pipeline swirl
- Help restore flow profile symmetry and eliminate distortions
- Isolates the flow meter from upstream disturbances
- Allows much shorter meter runs to be used with much higher repeatability
- Are applicable for all liquid and gas flows
- Helps with noise or pulsation problems

## Model Types

- CPF – Conditioner, Plate, Flanged
- CPW – Conditioner, Plate, Weld-in
- CTBF – Conditioner, Tube, Bundle, Flanged