

# Natural Gas Flow Meter

## Meter Styles & Meter Types

1. Differential pressure ( $\Delta P$ )—orifice plates, pitot, Venturi tubes
2. Motion mechanics—Coriolis meter
3. Positive displacement (PD meters)—diaphragm and rotary
4. Thermal dispersion—thermal mass flow meter
5. Variable area meter—rotameter
6. Velocity—turbine, ultrasonic, and vortex

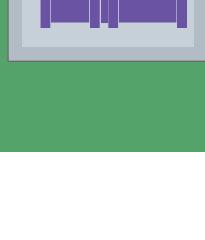


### Custody Transfer Meters

1. Coriolis
2. Diaphragm
3. Differential pressure ( $\Delta P$ )
4. Rotary meter
5. Turbine meter
6. Ultrasonic flowmeters
7. Vortex (approved-rare use)

### Industrial Meters

1. Rotameter
2. Thermal mass flow meter
3. Vortex



### Mass Flow Vs. Volumetric Flow

#### Mass Flow

1. Coriolis
2. Thermal mass flow meter

#### Volumetric Flow

1. Diaphragm
2. Differential pressure ( $\Delta P$ )
3. Rotameter
4. Rotary meter
5. Turbine meter
6. Ultrasonic flowmeters
7. Vortex



### New Vs. Traditional Technology

#### New

1. Coriolis
2. Thermal mass flow meter
3. Ultrasonic flowmeters
4. Vortex

#### Traditional

1. Differential pressure ( $\Delta P$ )
2. Diaphragm meter
3. Rotameter
4. Rotary meter
5. Turbine meter