

# BELL TECHNOLOGIES LOCATIONS

Headquartered in Katy, Texas, Bell Technologies, LLC has sales offices and projects located around the world. To find one near you, go to www.belltechnologieslic.com.

# THE BELL TECHNOLOGIES SOLUTION

Operators looking for durable, accurate and revolutionary solutions to solve their worst flow measurement problems can turn to the field-tested products of Bell Technologies, LLC.

A company that offers innovative design to help businesses utilize advancements in the science of differential pressure flow measurement, Bell Technologies, LLC combines technology and innovative engineering to provide solutions to customers in industrial and commercial markets.

# ABOUT BELL TECHNOLOGIES LLC

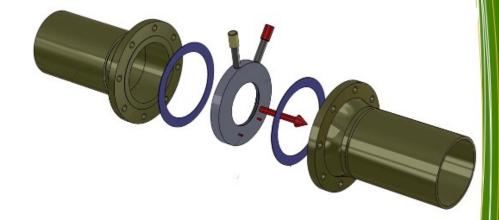
Bell Technologies LLC, based in Katy, Texas, USA, is a global leader in helping businesses create and utilize innovative advancements in differential pressure flow measurement. The company combines technology and innovative engineering together to provide solutions to customers in industrial, commercial and consumer markets. For more information, contact us at 713–465-7575, btllcsales@belltechnologiesilc.com

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TECHNOLOGIES, LLC

IMPOSSIBLE MEASUREMENT MADE POSSIBIBLE





The TORUS Water Meter
DP Flow Analyzer for Water Management

# Save Resources with the TORUS Water Meter

Water management and conservation demand ever-increasing requirements for verifiable record keeping of consumption by users for reporting to the water management. Regulatory agencies. Hence, for accountability of water usage and reporting to the Regulatory Agency, precise, reliable, and proven flow measurement system is in demand.

The Bell Technologies, LLC TORUS Water Meter (TWM) addresses the need for the industry.

The TWM has no moving parts and operating principle is based on basic laws of physics. Its flow contoured robust design will withstand extreme weather conditions with practically no influence of debris in the flow stream. Meter allows direct mount instrumentation on the meter, installed between two mating flanges with 51 upstream and 2D downstream straight run and has no restriction of meter orientation

The TWM offers cost effective low flow rate measurement uncertainties with at a low cost of ownership with negligible operational expense or periodic inspection.

A specially designed TWM can be retrofitted into an existing orifice meter-type differential pressure flow measurement system with dual or single chamber fitting.



# Produced/Tieback Water

- - Refining

### OTHER APPLICATIONS

- Produced / Tieback Water
- Chemical Injection
- **Fuel Measurement**

# If You Can't Measure it, You Can't Manage It: Most Reliable Solution for Managing Water Use



### FIELD TESTED DURABILITY

The TORUS Water Meter is a durable primary flow element for measuring water and wastewater. The durability lies in the circumferential ramp.

As the process encounters the ramp, it is merged gradually into the centrally located opening and is discharged to the downstream pipe. This ensures that the process never impacts a sharp, hard edge thereby resulting in minimal wear.

The circumferential ramp also offers self-cleaning capability on both the upstream and the downstream surfaces of the TWM and displays no loss of measuring accuracy.

#### PERFORMANCE SPECIFICATIONS

Accuracy: between ± 0.5% - ± 1.0 with fixed

discharge coefficient (dependent on pipeline size)

Better than ± 0.5% with multipoint

linearization by flow computer.

Turndown: 10:1 (standard)

Repeatability: ± 0.05%

Line Sizes: 1/4" - 60" (larger sizes, consult factory)

Standard Beta Ratios: 0.7, 0.5, and 0.3

Operating Conditions:

Temperature: 10.4 F - 122 F (Storage -40F to140 F)

Pressure: Vacuum to 5,000 psig

Installation Method: Between flanges

Protection Rating: ANSI Rating

Battery life: 5 years

Battery Options: Battery pack or solar panels

(consult factory)

#### KEY FEATURES

The unique design provides a measurement solution for any water flow applications.

Bi-directional flow is standard (You cannot install the TORUS incorrectly)

Ratio is up to 10:1 with elements available in a (ß) beta ratio from 0.300 to 0.750 as standard. (Consult factory for specials) Complies Turndown with API 22.2 testing by recognized third party flow laboratory.

# KEY BENEFITS

- · No moving parts
- Resistant to wear, Measurement accuracy depends only on the size of the bore
- Will not bend or bow when exposed high fluid
- · Standard warranty three years
- No flow conditioner requirement
- Optional upgrades available (larger battery packs or solar panels)
- Self-aligning meter installation

# USER INTERFACE

Display: Flow rate, total, battery voltage, low battery warning, sleep mode, empty pipe warning, flow velocity / direction

Rate Units: Gallon/minute, Litre/minute, liter/second, cubic feet/minute, cubic meter/hour, million gallon/day, mega liter/day

Total Units: Gallon, Gallon x 1000, Liter, Liter x 1000, Mega liter, Cubic meter, cubic meter x 1000, Cubic feet, cubic feet x 1000, Acre feet

Unit Settings: Set to customer specifications

Unit Switching: Can be switched by user defined button