

# ULTRASONIC FLOWMETER

pFlow

# COMPANY BROCHURES

Gentos Measurement & Control Co., Ltd



# COMPANY PROFILE

Pflow is the national branch of Gentos Measurement & Control Co. Ltd. Gentos focus on ultrasonic flow meter since 1993. Now we have formed our production system, the ultrasonic flow meter as the leader.



Reception desk



Exhibition hall

深圳  
Shen Zhen

Shenzhen , the city of science and technology , which gave birth to a lot of high-tech companies .Including HUAWEI , Tencent and **GENTOS**.





## COMPANY HISTORY

- 1993** Established in shenzhen , the city of science and technology . the birthplace of many high-tech companies such as HUAWEI, TENCENT and GENTOS.
- 1999** Obtained the Building Automation qualification certificate.
- 2004** Completed the fuel test standard “Rockets Attitude Control” of China Aerospace.
- 2009** Innovated Picofly technology , applied Picofly technology into ultrasonic flowmeter.
- 2011** Cooperation with HongKong polytechnic university and Harbin institute of technology university to prove Picofly in very fine time resolution.
- 2016** Participated in HANNOVER MESSE with the new products , Compound Multipath ultrasonic flowmeter D348DS plus and Smart Crystal F200.



## CERTIFICATE



## R&D CENTER

With more than 20 years experience, we have our professional R&D team, scientists and engineers careering for ultrasonic flow and time measurement.



## ENGINEERING TEAM



# PRODUCTS



**Ultrasonic Floemeter D116**

Dedicate flowmeter with Clamp-on transducers, wetted transducers are optional.  
Easy and friendly use. RS485, 4-20mA, pulse... etc.  
Inexpensive pricing.

Accuracy:  $\pm 1\%$   
Flow Range:  $0.03 \sim \pm 16 \text{ ft/s}$   
Pipe Size Range:  $1'' \sim 48''$



**Ultrasonic Floemeter P116**

Portable flowmeter with tracked transducers.  
Handheld aluminium case  
SD Card is equipped for data logging.  
Analysis software available .  
Inexpensive pricing.

Accuracy:  $\pm 1\%$   
Flow Range:  $0.03 \sim \pm 40 \text{ ft/s}$   
Pipe Size Range:  $1'' \sim 48''$



**Ultrasonic Floemeter D118**

Dedicate flowmeter with Clamp-on transducers, wetted transducers are optional.  
Signal processed by a 400k gate array to reach an ultra fine time resolution.  
SD Card is equipped for data logging. RS485, 4-20mA, pulse... etc.

Accuracy:  $\pm 0.5\%$   
Flow Range:  $0.03 \sim \pm 40 \text{ ft/s}$   
Pipe Size Range:  $1'' \sim 200''$



**Ultrasonic Floemeter P118i**

Portable flowmeter with tracked transducers.  
3.5" colour screen with graphic display.  
Touch key –press with handheld aluminum case.  
SD Card is equipped for data logging.  
Analysis software available.  
Unique technology for dynamic flow , PICOFLY.

Accuracy:  $\pm 0.5\%$   
Flow Range:  $0.03 \sim \pm 40 \text{ ft/s}$   
Pipe Size Range:  $0.6'' \sim 240''$



**Ultrasonic Floemeter D348D**

Multipath flowmeter for complicated flow profile.  
Unique technology for dynamic flow , PICOFLY.  
Very high resolution for accurate measurement.  
Suitable for large diameter pipe measurement.

Accuracy:  $\pm 0.5\%$   
Flow Range:  $0.03 \sim \pm 23 \text{ ft/s}$   
Pipe Size Range:  $4'' \sim 200''$



**Ultrasonic Floemeter D348D Plus**

Multipath flowmeter for complicated flow profile.  
Unique technology for dynamic flow , PICOFLY.  
Higher resolution for accurate measurement.  
More suitable for large diameter pipe measurement.  
4.7 inch TFT color screen.

Accuracy:  $\pm 0.5\%$   
Flow Range:  $0.03 \sim \pm 23 \text{ ft/s}$   
Pipe Size Range:  $4'' \sim 200''$





No broken pipe installation.  
The accumulation of permanent and can be reset.  
LCD display.  
High accuracy at low and high flows.  
Clear, user-friendly menu selections.

Accuracy:  $\pm 1.5\%$   
Pipe Material: PVC-U  
Protection Rate: IP67

CA Serial  
Ultrasonic Flowmeter



Antacid/Erosion-resistant.  
No wear-and-tear parts.  
High accuracy at low and high flows.  
Clear, user-friendly menu selections.  
Simple to install.

Accuracy:  $\pm 1\%$   
Pipe Material: PVC-U  
Protection Rate: IP54

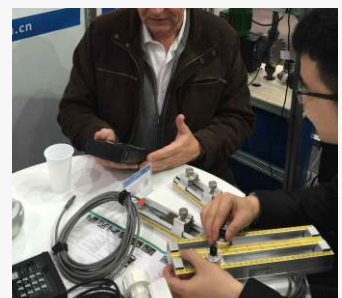
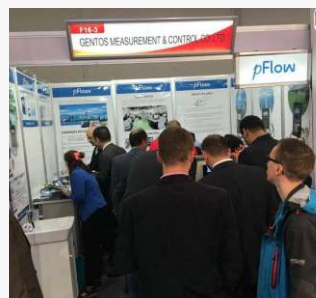
Loss Free Meter F148



4.7" graphic LCD.  
CNC machined enclosure with hardened aluminium.  
Unique technology for dynamic flow, PICOFLY.

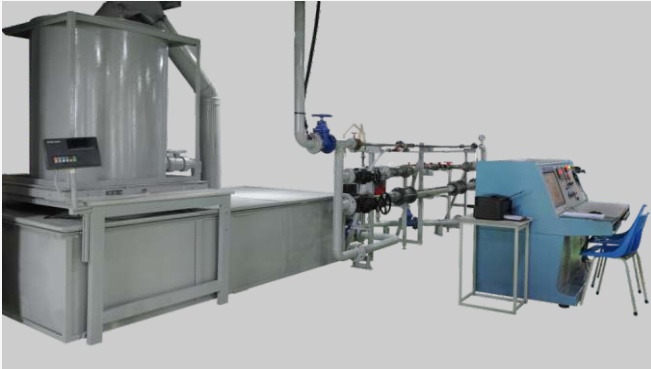
Accuracy:  $\pm 0.5\%$   
Flow Range:  $0.03 \sim \pm 40 \text{ ft/s}$   
Pipe Size Range:  $1'' \sim 200''$

Ultrasonic Floemeter  
D118i



# QUALITY CONTROL

## CALIBRATION



Liquid Flow calibration device adopts weighing method to calibrate, suitable for flowmeter in DN8 ~ DN80.



Axial double-loop flow calibration device adopts 3488D multipath ultrasonic flow meter as a master meter. The master meter takes our PICOFLY technology, the resolution has reached 0.01 nanoseconds, realize single point repeatability of 0.04%.



Heat meter flow calibration system can be used to calibrate the hot (cold) flowmeter DN15~DN50, the measuring medium temperature which can be maintained at  $50^{\circ}\text{C} \pm 5^{\circ}\text{C}$ .



DN100 axial flow calibration device is mainly used in volume production product calibration, the calibration device can be inspection 6 sets flowmeter at the same time.

## HIGH-TEMP AGING WORK

In 55 centigrade high temperature environment at least 72 hours to make the high-temp aging work .



# PICOFLY TECHNOLOGY

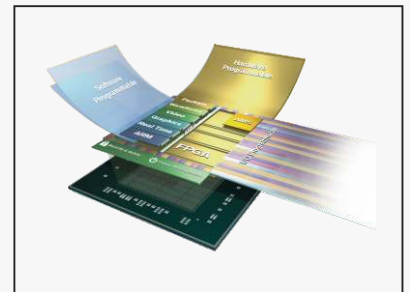
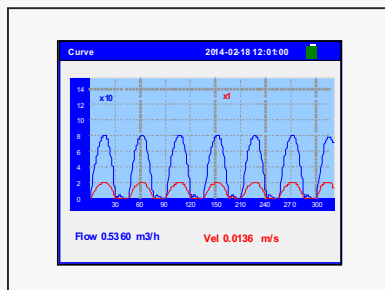
Unique technology for dynamic flow, innovated specially for China Aerospace Industry.

Picofly used in ultrasonic flowmeters can reach an ultra fine time resolution in picosecond grade.

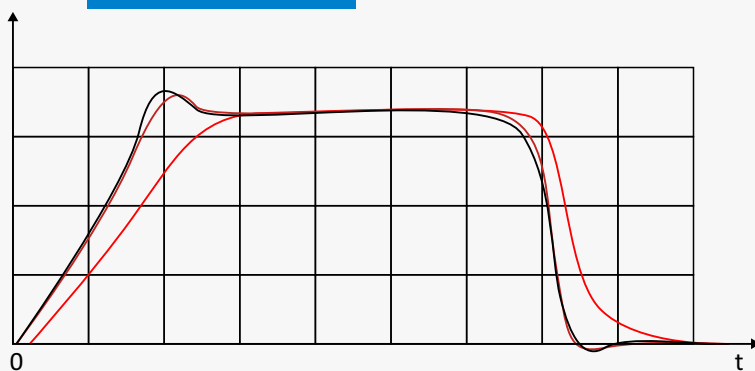
Picofly Circuit uses 1.4 million gate array to construct a holographic signal process.

Picosecond time resolution greatly enhances the flow velocity sensitivity and tracks the real fluid dynamics.

Flowmeters with Picofly perform significantly in very fast response and very accurate flow measurement.



## Technical Feature



Comparison Chart of the flow measurement

- Actual fluid
- Steady measurement fluid
- PicoFly measurement

- ▶ No blind spot time measurement
- ▶ Image resolution: 1ps (1ps =  $10^{-12}$ s)
- ▶ Single measurement accuracy up to 10ps
- ▶ Effective sampling rate > 9500 times/sec



# APPLICATION

