

1.0 – Introduction

1.1 History

- ❖ 1986-1992: Founders at Elliot Flow Computers (liquid and gas panel mount flow computers)
- ❖ Established in 1993
- ❖ 1993-1997: Focused on liquid flow computers
- ❖ 1998: Expanded to both liquid and gas flow computers for worldwide markets
- ❖ 1999: Launched the Micro MV flow computer model
- ❖ 2001: Launched the E-Chart flow computer model
- ❖ 2003: Launched the E-Plus flow computer model
- ❖ 2004: Launched the E-Lite flow computer model
- ❖ 2008: Updated the E-Lite flow computer design to accommodate optional expansion board
- ❖ 2011: Launched the SmartCone flow meter
- ❖ 2013: Launched the FloPro flow computer model

1.2 Scope of Activities

Dynamic Flow Computers has over 20 years of experience in flow computer manufacturing and design. We found our competitive edge by designing innovative flow computers to fulfill the needs of the oil & gas markets. Our flow computers are simple to use, yet are able to perform complicated tasks. The accuracy and reliability of our flow computers in custody transfer and measurement is always set to industry standards.

1.3 Solutions

As a solution provider, our engineers designed one of the first explosion-proof liquid and gas flow computers to be placed on the meter run, instead of in the control room. These meter-mounted flow computers not only reduce the wiring costs drastically, they also provide more accurate data and save the field operator's time and effort in calibration and maintenance.

Our flow computers are designed to operate in various fields, such as petrochemical and refining, wellhead, liquid pipeline and storage, gas pipeline and storage, etc. Our flow computers are compatible with orifice, Venturi, V-Cone, Wedge, ultrasonic, PD meter, flow nozzle and turbine meters, as well as our own SmartCone flow meter. In addition, the algorithms in our flow computers are constantly updated to keep current with API, AGA, NBS, ISO and ASTM.

2.0 – Technology Overview

Our advanced hardware and software covers many measurement demands, including:

- Quantity of Inputs & Outputs (Analog, Frequency, Digital, Status)
- Products for Natural Gas, Industrial Gases, Crude, NGL/LPG, Water and more
- Algorithms for API 14.3, AGA 3, AGA 7, AGA 8, API 21.1 & 21.2 EFM Standards, API Liquid and many others
- Low power consumption (0.5 watt)
- Compatibility with 12V/24V DC and solar power options
- Built-In multivariable transmitter can handle static pressure, differential pressure and temperature
- Modbus communication protocol
- RS-232 & RS-485 serial interface
- Data Management
 - Windows and DOS based configuration software
 - On-site or remote configuration
 - Modbus master and slave (ASCII or RTU)
 - Data storage and retrieval
 - Data displayed and collected via PDA, laptop, radio or satellite
- Historical Data
 - History points configured to archive the current value, average value, totalized value and accumulated value
 - Up to 64 days of data storage, to include min/max, minute, hourly and daily values
 - Monthly data is stored for one year
- Event and Alarms Logs
 - Event log records the last 200 parameter changes
 - Alarm log records the last 200 alarm occurrences
 - Logs can be viewed, saved, printed or transmitted
- PID control
- Built-in turbine diagnostic to detect:
 - Missing or extra pulses
 - Turbine wobbling
 - Pulse irregularity
 - Turbine bearing issues
 - Turbine cavitations
 - And many other issues that alert to turbine performance, even before type B security detects any pulse integrity deterioration.
- Optional UPS for days of operation
- Gas chromatograph / dosimeter interface
- Alpha-numeric and graphical display
- Class 1, Div 1, Groups B, C & D approval
- Free configuration software
- Optional Bluetooth or wireless radio communication
- And many others, please visit our website for additional information:
www.dynamciflowcomputers.com

3.0 – End User List

Companies who currently use our products include:

Domestic (USA)

Air Products
Air Liquide
Agip Petroleum
Anadarko Petroleum
Amerada Hess
Amoco Production
Bechtel Corporation
Baker Energy
Chevron Chemicals
Clark Refining & Pipeline
Conoco Pipeline
Daniel Industries
Dynegy Midstream
Devon Energy
Fluor Daniel Corporation
Eott Energy
Enterprise Products
Equistar Pipeline
Exxon/Mobil
Fina / Atofina
FMC Smith
Huntsman Chemical
Kinder Morgan, Inc
Kerr McGee Corporation
Koch Refinery
Lake Charles Pipeline
Marathon Oil
Merit Energy
Mid-America Pipeline
Pinnacle Gas
Southern Petroleum Lab
Shell Chemicals
Sun Pipeline Company
Texaco Pipeline
Transmontaigne Pipeline
Union Carbide / Dow
Unocal Corporation
Williams Pipeline

International

ADCO
Al-Fanar Petroleum
Atlantic LNG
Cementos Cruz Azul
Pemex
Eco Petrol
Huskey Energy
Insertec / Andina Repsol
Integradores
Korea Oil Company
Kuwait Oil Company
Maple Gas
Oxy
PDVSA / HAMACA
Petrobras
Petro CANA
Pertamina Refinery
Santos CMI
Saudi Aramco
Saudi Mobil / Lubref
Saudi Jubail Glass Factory
Shell
Sonatrach / Arco Resources
TosI Engineering
Vintage Exploration
Weatherford Oil Tool Middle East Ltd
Zeta Gas