EFDS

Electronic Fuel Delivery System

Automated Fuel Data Management Solution

Powered by 2.4GHz EMPRESS™ Active RFID System

When you are working with a medium-sized construction site which got over 50 civil plants having their tanks filled with your fuel.

Ever face the following challenges?

- Spent hours digging through mounds of paperwork to split the bills to different contractors;

- Be annoyed by wrong ticketing or manual errors;

- Your client requested a detailed vehicle-by-vehicle refueling record;

- Your client ask for fuel efficiency management solution.

Is Your Customer Service Enough?

In today's fast-paced environment, increasing demands has been placed on the **accuracy of fuel dispensing transaction data** for **commercial fuels**. Your customers are expecting more comprehensive customer services on fuel management.

Your success is dependent on your ability to help your customers **precisely record, wisely analyze, and quickly respond to their fuel consumption** and efficiency. EFDS allows both you and your clients to stay on top of your business! Quickly and easily account for **how many gallons you have on-hand**: in the fuel tanker, in the bulk plant and in the trucks.

Electronic fuel delivery system (EFDS) is an award winning system that helps you to generate **fuel efficiency reports** that compares the **operation time against fuel consumption** for each construction plant and vehicle. It is a system that integrates the entire refueling process: from oil injection to plant & fleet management.
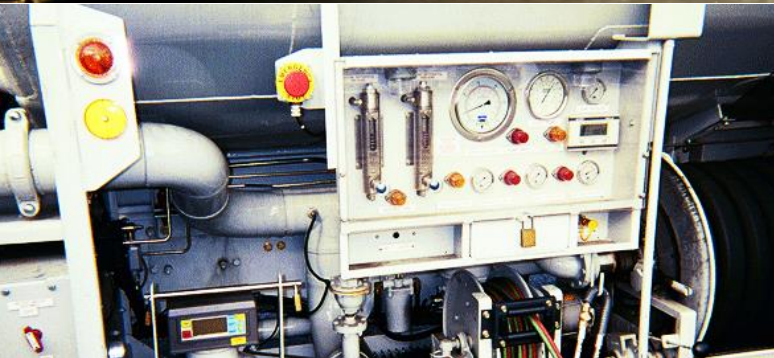
It allows managers to carry out more **comprehensive analysis on fuel consumption and fuel efficiency**, thus, to plan for more competitive strategy for their sites.

What is EFDS?

AVI, Automatic Vehicle Identification

ID-Tag gives an unique ID number to each plant and vehicles , allowing easy identification by managers and workers with a PDA (Handheld RFID Reader).

Fuel Meter Data Validation

By synchronizing the PDA with the ES-Box, inspectors can cross check and validate fueling data by time, by plant or by contractor company.

Data accuracy is guaranteed and management is improved.

Operation Time Recording

The Operation Timer records working hours of plants and vehicles for better monitoring. Machinery malfunction or fuel inefficiency can be detected and handled immediately.

What Does *EFDS* give you

On-site Consumption-based Ticketing

EFDS allows you to calculate fuel expenses at anytime and to print and issue fueling tickets at anywhere with our portable Bluetooth Printers.

Manual errors and incomplete data can be avoided.

Wireless Data Transfer & Consolidation

All captured data can be instantly communicated via RFID or Bluetooth in between PDAs and central computer. Management can consolidate and overview the entire data net over the whole site, or even over different sites.

Fuel Efficiency Analysis and Report

FuelData360, a PC based software, empowers easy, reliable and effective data management and analysis.

Comprehensive reports can be generated to manage fuel efficiency and improve ROI.

What Does *EFDS* give you

Fuel Meter Data Validation

EFDS

AVI

Fuel Efficiency Analysis

Operation Time Recording

System Overview

ID Tag

AVI

Portable Printer

On-site Ticketing

RFID

RFID

Analysis & Reports

Docking
Station

PDA
(RFID Reader)

Flow Meter

ES-Box

Fuel Meter Data Validation
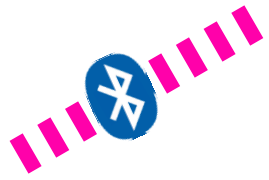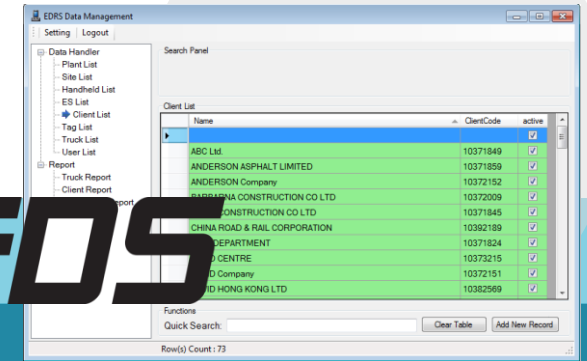
All are Connected by *EFDS*

FuelData360
Software

All devices and components of the EFDS communicated using RFID/ Bluetooth technology.

Active RFID Communication

- Low power consumption

- Highly reliable

- Fast data transmission

- Multi-tag reading

- No matching is needed

Our Products

Connected to the fuse box of the plants and equipment

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Collects operation time data

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Allows managers to better oversee and monitor downtime and productivity

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Detects and signals machinery malfunction or fuel inefficiency

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Prompt maintenance works can be done

Operation Timer

Connected to the flow meter of the oil truck

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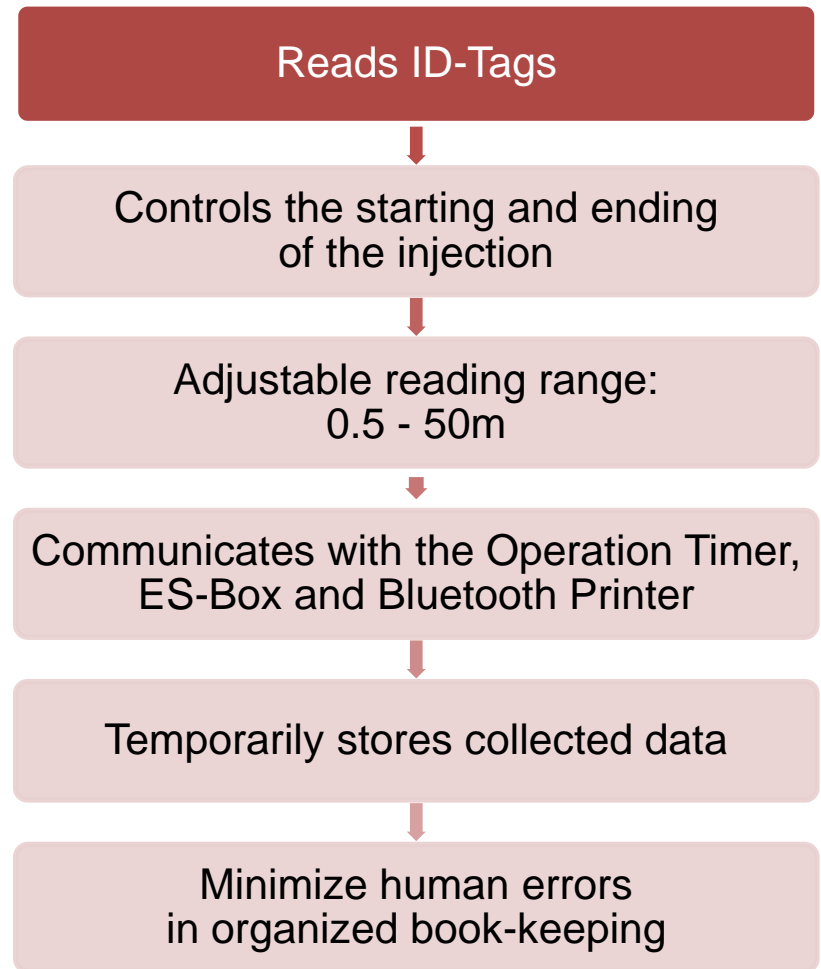Works well with EMR System and flow meters that communicate in R232/ RS485 or TCP/IP

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Records starting-, stopping-time & transaction volume

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Cross-check with flow meter data

ES-Box (Embedded System)

Reads ID-Tags

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Controls the starting and ending of the injection

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Adjustable reading range: 0.5 - 50m

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Communicates with the Operation Timer, ES-Box and Bluetooth Printer

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Temporarily stores collected data

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Minimize human errors in organized book-keeping

PDA – Hanheld RFID Reader

Gives each plant an unique ID

LED light
High durability and readability

2-way identification of plants

ID Tag – Active RFID Tag

ID Tag sends out RF signals continuously

⬇

PDA can detect multiple ID Tags

⬇

Select targeted plant's ID on screen

⬇

LED light on the Tag will light up as response

⬇

The PDA and the Tag is now paired up

AVI Operation Flow

Press "START" button on screen

⬇

Inject fuel

⬇

Press "STOP" when it is done

⬇

LED light on the Tag will turn on as response

⬇

The Tag is now freed from the PDA

AVI Operation Flow

- Durable 2.4 GHz Active RFID ID-Tag with responsive LED
- PDA as a portable reader, which identifies ID-Tags, synchronizes data with ES-Boxes and reads Operation Timer
- Highly compatible ES-Box works well with commonly-used oil meters* for data validation
- Operation Timer is small and with simple installation steps
- Analytical software FuelData360 with user-friendly interface
- On-site technical support for system installation
- Project-base maintenance support
- Software updates and staff training workshops
- User Manual and Demonstration Video

Features of EFDS

Shell

Chevron

Tak Cheong

Job References with Our Partners

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