

FMC Technologies Measurement Solutions

The Leader in Biofuels Blending



Since Congress passed the “Clean Air” Act in 1990, Smith Meter™ equipment has been the standard for handling ethanol blending and unloading applications. Today’s increasing requirements for biofuels, including biodiesel blending and unloading, require the same high standards for fluid handling and measurement accuracy Smith Meter equipment is known for.

Our expertise in custody transfer measurement, coupled with critical conditions and specific issues related to biofuels blending and unloading, has led FMC Technologies to develop and offer complete skid mounted packages with properly designed and fitted equipment to meet the increasing demands for biofuels distribution.

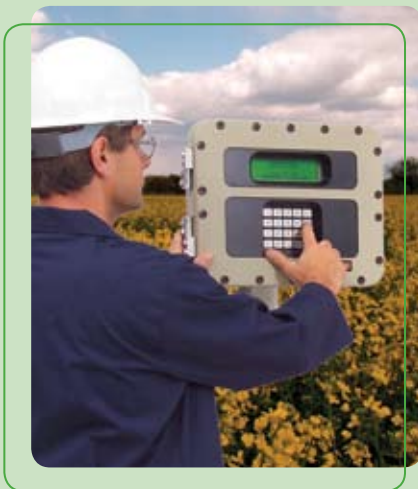
Typical Blending Skid Package

Biodiesel Blending

Smith Meter™
- PD Meters
- Control Valves
- AccuLoad III Preset
- Strainers
Additive Systems
In Line Mixers
Isolation Valves
Proving Valves
Thermal Relief
RTD's
Pressure Gauges
Skid Frame
Piping and Electricals
Heat Trace and Insulate
Sand Blast and Paint

Ethanol Blending

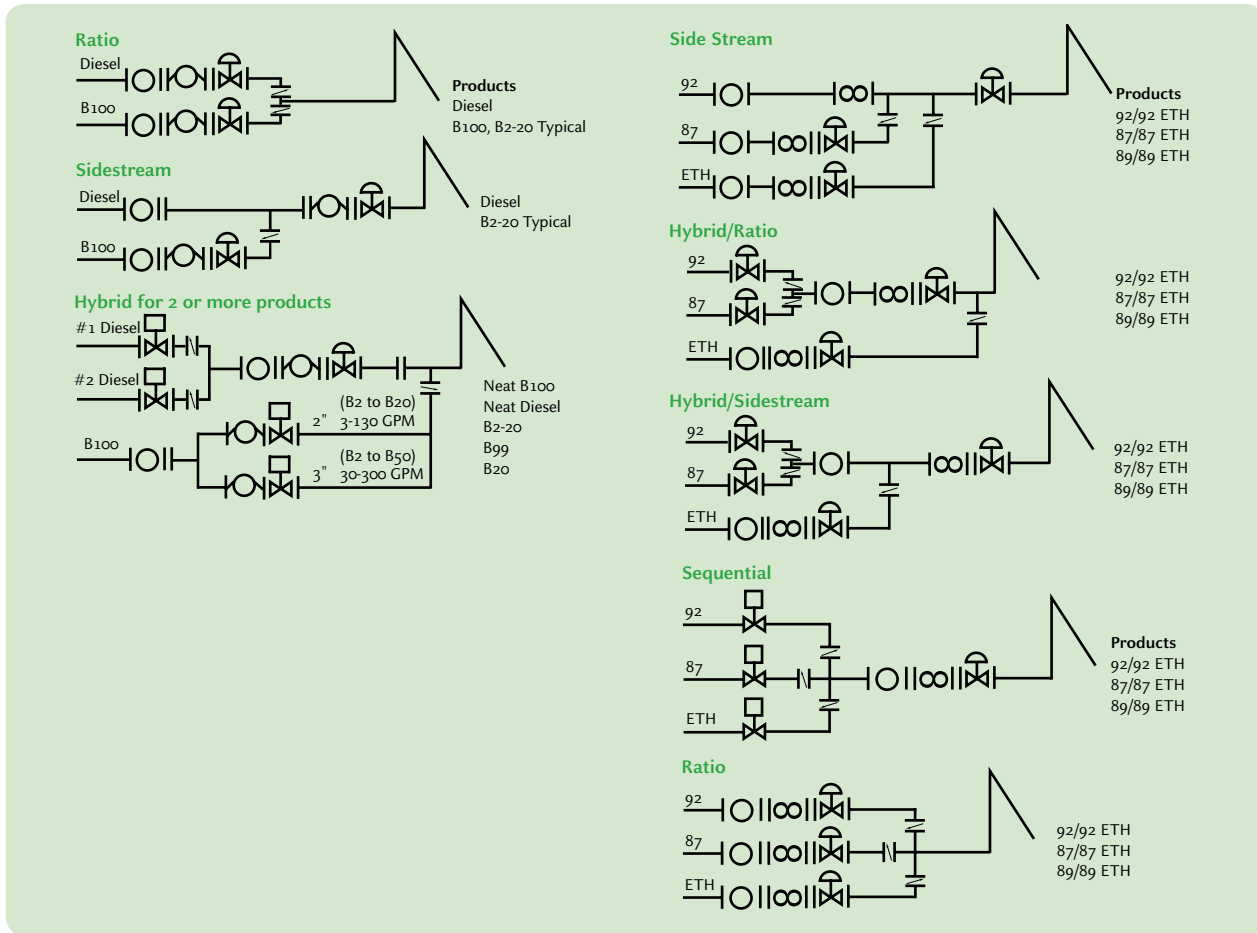
Smith Meter™
- PD and Turbine Meters
- Control Valves
- AccuLoad III Preset
- Strainers
Additive Systems
Isolation Valves
Proving Valves
Thermal Relief
RTD's
Pressure Gauges
Skid Frame
Piping and Electricals
Sand Blast and Paint



Types of Blending

- **Sequential Blending** – Loading of two or more products into a compartment through one meter and counter valve and one loading arm by selecting individual products in a specified sequence by opening and closing dedicated product block valves
- **Ratio Blending** – Loading of two or more products into a compartment simultaneously where each product has its own set of dedicated meters and control valves
- **Hybrid Blending** – A combination of ratio blending a component into a sequential recipe, such that the ratio component is blended each time a sequential component is selected
- **Side Stream Blending** – A two-product ratio blender where the minor of two products is metered and controlled by a valve. The main product is free flowing. Another meter and its corresponding control valve are located downstream from where the two products merge.

Typical Blending Configurations



Typical Unloading Skid Package

Smith Meter™

- PD Meters
- Control Valves
- AccuLoad III Preset
- Strainers

Bulk Air Eliminators with Auto Sense Level

Isolation Valves

Proving Valves

Unloading Pumps

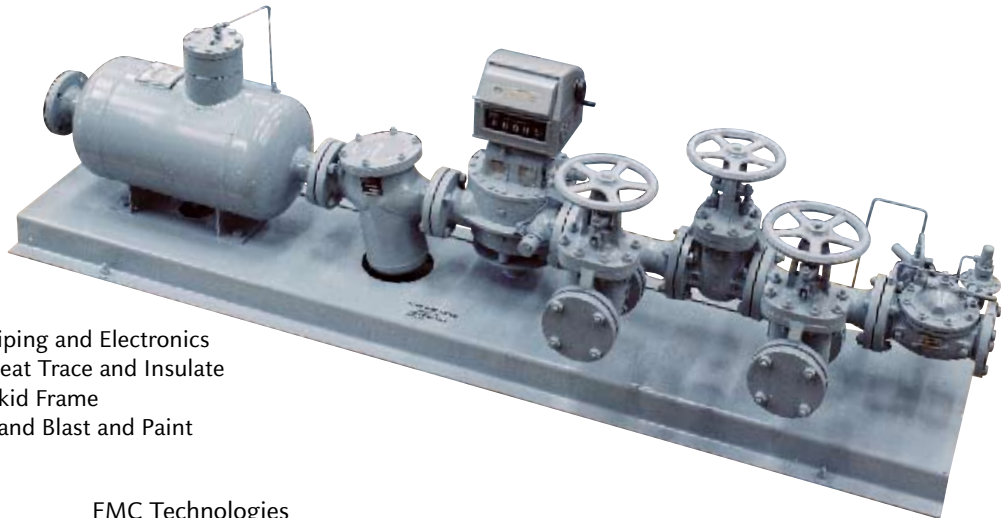
Couplers

Thermal Relief

RTD's

Pressure Gauges

Piping and Electronics
Heat Trace and Insulate
Skid Frame
Sand Blast and Paint



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