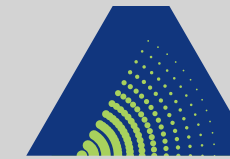


PROPORTIONER – PISTON PUMP	PROPORTIONER – AKURATE
Pump Type – Piston pumps mechanically connected for even strokes	Gear Pumps – Separately driven by variable speed motors
Measurement of chemical flow – Stroke counters give the number of strokes which is multiplied by the displacement of chemical per stroke –No indication of actual even chemical displacement has occurred.	Measurement of chemical flow – Flow meters accurately measure the amount of chemical being pumped through the flow meter assuring even chemical displacement has occurred.
BENEFITS AND ISSUES	BENEFITS AND ISSUES
Piston Pumps have sealing components which are subject to wear – this causes leakage in the pumps and result in off ratio and pressure imbalances.	Gear Pumps – very reliable pumps with very few pressure sealing contact points.
Positive Displacement – are the most simple displacement systems available. Little documentation as to tolerances. Unable to calibrate – must rebuild if leakage is an issue.	Positive Displacement – have more leakage paths by design than piston pumps and require some form of compensation such as flow meters and computer controlled variable speed motors for ratio matching.
HEATED HOSES – CURRENT TECHNOLOGY	HEATED HOSES – AKURATE
Most current systems are externally heated hoses utilizing series heating. Power is generated from a transformer which heats the entire hose assembly.	Akurate Hoses are internally heated with the heating element in direct contact with the chemical. Each section of hose is independently heated and monitored.
BENEFITS AND ISSUES	BENEFITS AND ISSUES
Weight-The copper on the outside of the hose adds significant weight to the hose assembly.	Weight – 25% overall weight reduction with a 65% weight reduction on the heated whip.
Series Heating – Does not adjust for environmental conditions while the hose assembly is in different environments – parts in the rig, laying in snow and spraying inside of a house.	Individual Section Heating – Typically every 50 feet of each 100 foot section. Chemical temperatures are measured and adjusted continuously. The hose jacketing acts as an insulator since heat is not being driven thru the outer hose material.
Series Heating – if you lose one connection the entire hose no longer works.	Individual Heating – If loss of connection occurs the other sections are not affected.
Delta T - Ability to keep temperatures supplied to hoses during normal running conditions, high flow rates can lead to temperature drops in the hose.	Combined with rapid heaters in proportioners – temperature compensating hoses ensure precise and controlled spray temperatures. Recirculation for heating purposes is unnecessary.

Patent No: US 9,895,708 B2



**AKURATE
DYNAMICS**
The Science In Spray Foam

DELTA CPS

Features

System design is similar to in-plant processing systems. In-Plant systems utilize Gear Pumps, Motors, PLC (Programmable Logic Controllers and Flow Meters for ratio controls.) The Delta CPS offers proven technology now in mobile applications.

Proven Reliability of Gear Pumps – Fewer seals and improved operational longevity.

Ease of serviceability and maintenance of the ISO plasticizer.

On-board touch screen allows for simple chemical data input.

Printable Certificate of Conformance tracks all system activity and reports ratio results.

The Delta CPS assures you and your customer that each job meets the chemical manufacturer's specifications.

Akurate dynamics internally heated hoses are designed to maximize energy efficiencies – The Delta CPS is not compatible with other hoses.



DELTA CPS PROPORTIONER SPECIFICATIONS

Machine Application	Low to medium volume wall foam applications
Power Input	Nominal 200-240 VAC, 1 Phase, 50/60 HZ Nominal 200-240 VAC, 3 phase, 50/60 HZ
Weight	500 LBS.
Dimensions	
Width	36 in.
Height	52 in.
Depth	28 in.
Operating Temperature	50 – 130F
Maximum Fluid Working Pressure	2200 PSI
Maximum Fluid Temperature	150F
Proportioner Power Budget Electric Heating	8.0 KW
HMI (Human-Machine Interface)	TFT-LCD with touchscreen
Hose Electrical Code Compliance	GFI Protected Hoses
Hose Length	300 Feet
Alarms	Descriptive alarms with time stamp of occurrence

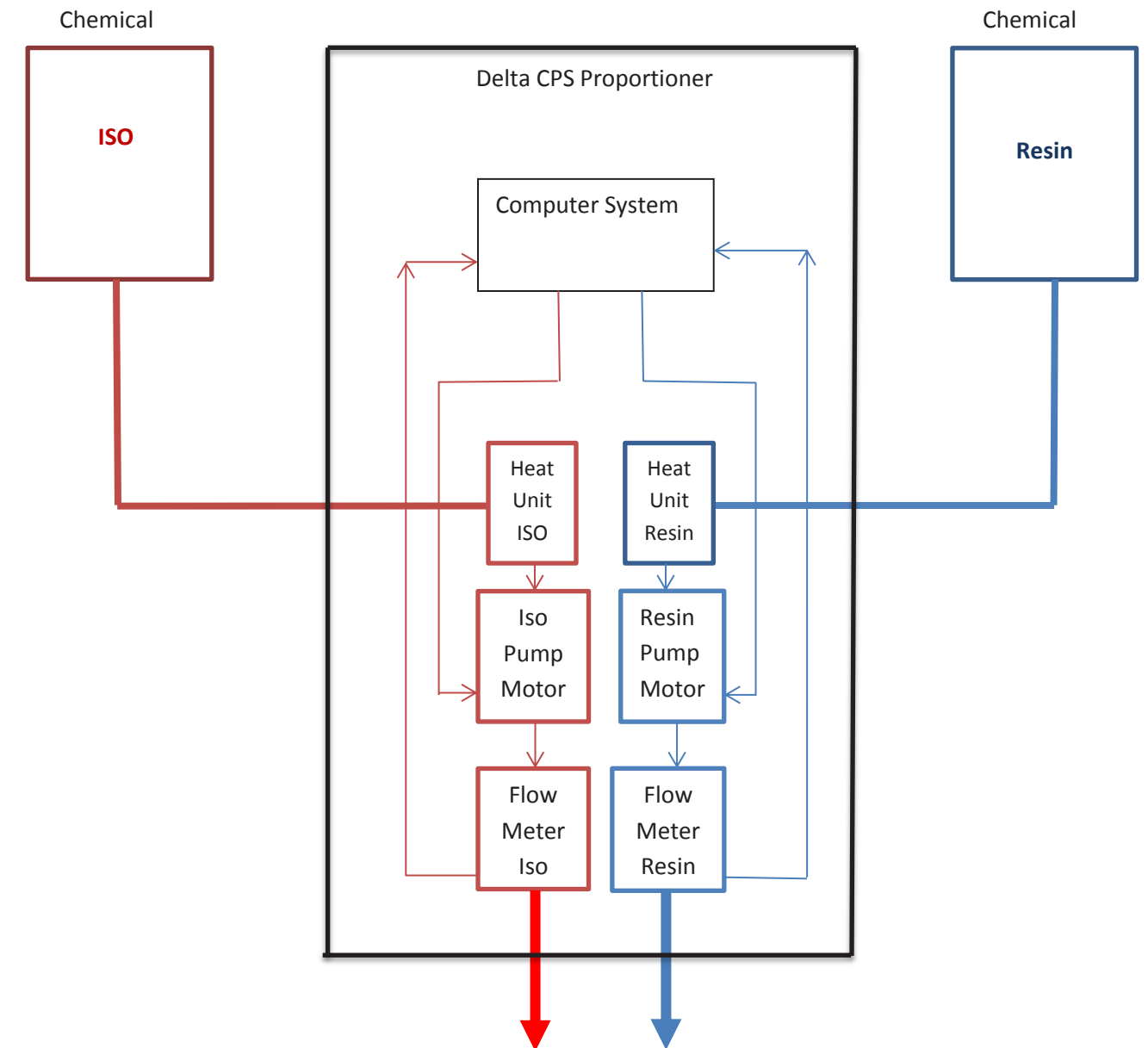


IMAGE OF MAIN OPERATORS SCREEN

Process of Ratio Control

Iso Motor is set to a fixed Speed.

Flow is detected by the computer on both Iso and Resin Flow Meter. If Ratio is off, then the computer adjusts the speed of the Resin Pump to make the flow meters match. Thus ratio is set by computer and requires no interaction with operator.