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STATE:			JOB PROGRESS	
Base Fluid SG	1.000		End of Job	0.0
Target SGU	1.000		Stage 000 of 000	
Calculated SGU	0.000		End of Stage	0.0
Measured SGU	0.307			
Discharge psi	0.0			

DESCRIPTION	RATE	TOTAL
Suction	0.00 bbl / min	0.0 bbl
Discharge	0.00 bbl / min	0.0 bbl
Proppant	0.00 lbs / min	0.0 lbs
Chemical 1	0.00 gal / min	0.0 gal
Chemical 2	0.00 gal / min	0.0 gal
Chemical 3	0.00 gal / min	0.0 gal
Chemical 4	0.00 gal / min	0.0 gal
Chemical 5	0.00 lbs / min	0.0 lbs
Chemical 6	0.00 lbs / min	0.0 lbs
Chemical 7	0.00 gal / min	0.0 gal
Chemical 8	0.00 gal / min	0.0 gal



AccuFrac plus
10:01:25 AM

START JOB
NEXT STAGE
HOLD STAGE
ABORT JOB
LogOut



AccuFrac plus

Next Generation Fracturing Equipment Control Suite

AccuFrac+, Stewart & Stevenson's next generation fracturing equipment controls suite, incorporates industry-leading equipment control, diagnostics and data acquisition. Backwards compatible with previous generation AccuFrac equipment, AccuFrac+ easily updates your existing fracturing spread with the following benefits:

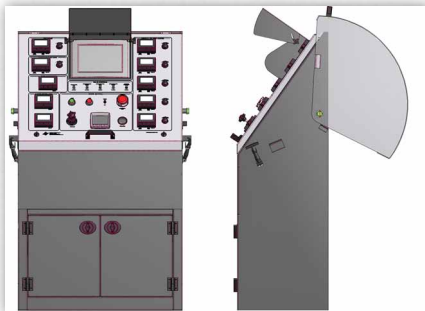
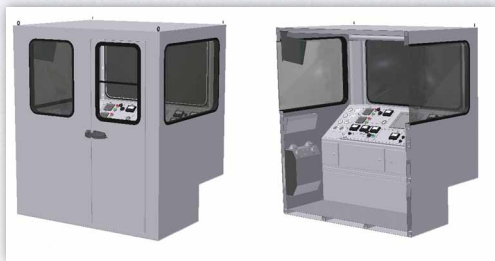
- Expanded operational capability
- Improved reliability
- Enhanced user interface

AccuFrac+ offers simplified setup, calibration and tuning. The new controls are easier to understand, easier to operate and easier to service than previous controls. AccuFrac+ incorporates a foreign language interface for international customers.

AccuFrac+ Controls Equipment

AccuFrac+ controls are provided for the complete family of well stimulation products:

- Blenders (Standard Cabin)
- Fracturing Pumps
- Hydration Units (Cabin Optional)
- Chemical Additive Systems
- Data Vans



Control Functions

Tube Level (Blenders and Hydration Units)

- Controls the suction pump based on feedback from a level sensor
- Quick reaction prevents spills and loss of charge pressure
- Smooth control minimizes fluctuations in suction rate
- Feed-forward corrects for disturbances before the level is affected

Proppant (Blenders)

- Up to 3 screw auger delivery devices
- Precision instrumentation and drive systems provide extreme control range
- Accurate proppant rates with empirically derived delivery tables
- Automatic auger selection or user-controlled priority
- Proppant rate can be based on suction (clean) rate or on discharge (slurry) rate

Chemical Additives (Blenders, Chemical Additive Units, and Hydration Units)

- Up to 8 chemical circuits (up to 12 on CAS units)
- Chemicals are programmed in parts-per-thousand
- Supports liquid and dry chemical additive systems
- Chemical rates can be based on suction (clean) rate, discharge (slurry) rate or an external rate

Engine and Transmission Control (Fracturing Units)

- Direct digital communication provides faster, more accurate engine control with no throttle calibration
- Direct digital communication allows the transmission to control the shift
- On-board interface allows running, testing, and troubleshooting of the unit without a suitcase
- Alarm indicators give technicians engine and transmission codes in easy-to-understand terms (e.g. "coolant level sensor failure")



AccuFrac+ Features

Hardware

Outstanding performance made possible by a high-speed, RISC architecture microcontroller with parallel processing and a real-time operating system

High-speed CAN networks provide reliability and serviceability

- Reduces wiring
- Reduces setup and calibration
- Uses standard CAN diagnostic tools and techniques
- Provides native digital communication to engines and transmissions for control, information and alarms

Large, rugged, panel-mounted human machine interface (HMI) provides high visibility and easy operation

Panel display meters greatly enhance user information and control

- No calibrations or settings of any kind are required
- Rates and totals on one screen
- Target rates displayed
- Units of measure automatically match the HMI selections
- Chemical labels match the name entered in the HMI (e.g. "pH Buffer")
- Auger displays can read in rpm, lb/min, kg/min, etc.

Software

- Easy navigation with quick access tabs instead of menus
- Multi-language support
- Multi-level passwords allow you to control access

Alarm indicator

- Lets the operator know immediately if there is a problem
- Logging system shows active and inactive alarms

Audit trail

- Maintains a log of user-entered changes to the system, who made the change, when, what the value was before and what it was changed to
- The log can be exported to a thumb-drive for review on a computer (.CSV file)

A chart screen allows a user to view data trends

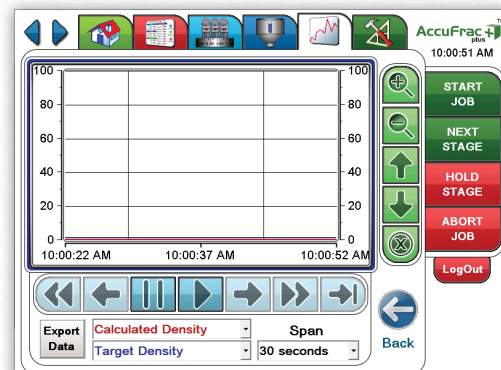
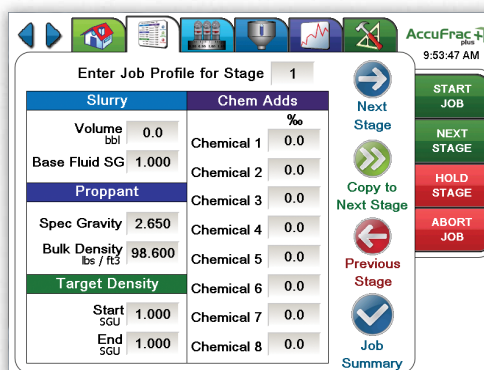
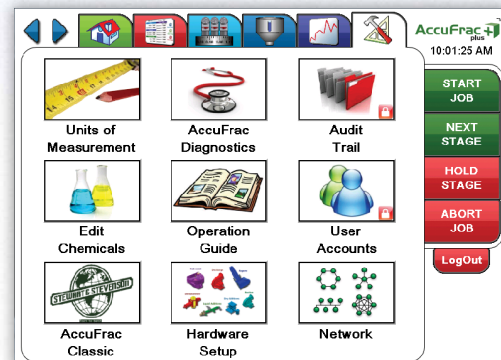
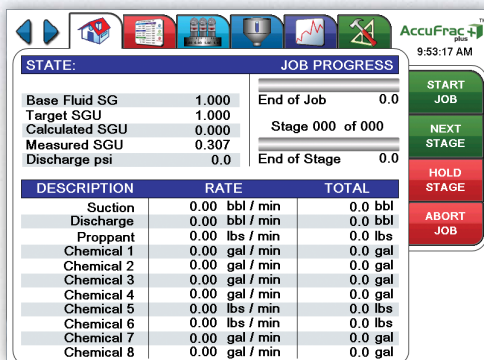
- The data can be exported to a thumb-drive for review on a computer (.CSV file)

Easy job programming and adaptation on-the-fly

Built-in PDF reader

- Software user's guide is provided
- The user can add standard operating procedures, MSDS, charts, etc... via USB thumb drive

Flexible units of measure





www.stewartandstevenson.com

Stewart & Stevenson Manufacturing Center

Houston, TX
10750 Telge Road
Houston, TX 77095
281-345-5100

www.stewartandstevenson.com

Company Headquarters
1000 Louisiana, Suite 5900
Houston, Texas 77002
713-751-2700
Headquarters@ssss.com