



PCP BEAM ESP vfd

ESP switchboard fsd

ESP transformers

ESP skid packages

PCP ESP controller

ESP down hole sensor

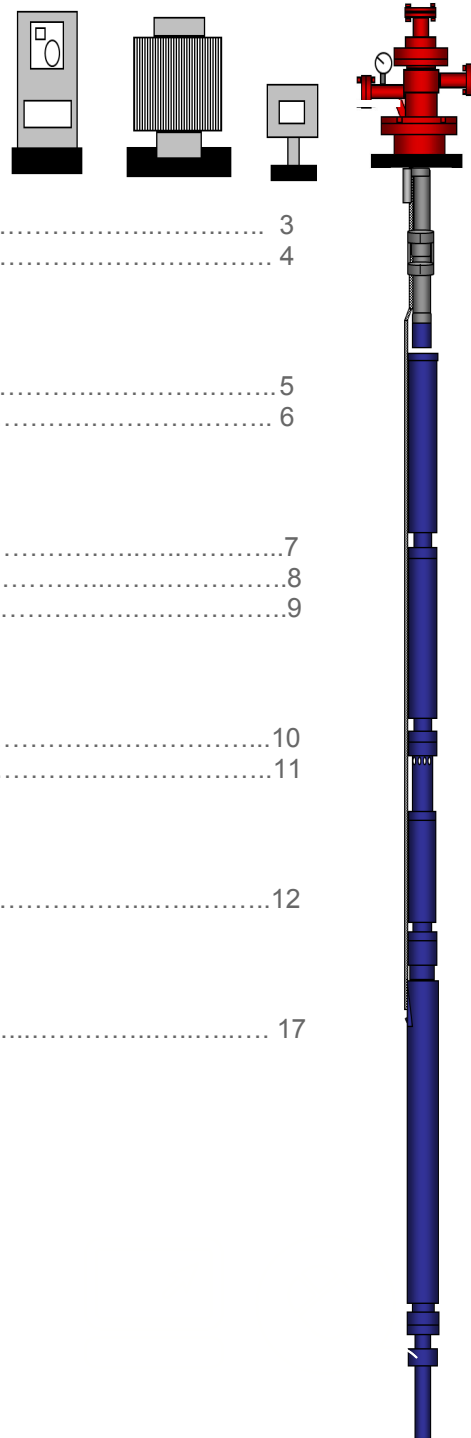
ESP wellheads/pigtails

VFD system integrator
MOTOR distributor

consulting
sales
manufacture
support



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Crossman at work for you

CONNECTING YOUR REQUIREMENTS TO THE TECHNOLOGY RESOURCES YOU NEED

Crossman Automation Inc is a Canadian based OEM Manufacturer and Distributor with over 50 years experience servicing industrial and oil field clients.

We have gained a reputation for quality products and outstanding customer service combining our years of experience with our personal expertise. Innovative thinking, and determination has enabled us to provide you with the very best in industrial and oil field solutions.

Our customer base is in Western Canada and Internationally in the Middle East, North Africa, South East Asia and South America. Our clients include Oil Companies, Pump Companies, Industrial facilities , Engineering firms and Electrical Distributors. Our focus is on long term relationships with our clients to improve performance of existing and new applications. Quality testing and field training is key to our client's success.

flexible solutions for your vsd/vfd needs



VFD/VSD DRIVE SOLUTIONS

Crossman Automation provides engineering and manufacturing of Variable Speed Drives for Industrial and Oil field applications. We are a Systems Integrator, offering our standard designs and custom engineered designs, specific to your application and environment. Artificial Lift ESP and PCP are achieved with our Crossman Elliot Touch Screen Motor Controller,. BEAM, ROTOFLEX are achieved with patented Sensorless Artificial Lift Technology (S.A.L.T.) Well Manager Interface.

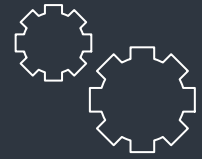
- Standard 6-Pulse and 12-Pulse Drives
- Advanced Harmonic Filtered (AHF) Drives 5-10%THD
- Low Harmonic Drive (LHD) IGBT Active Filter <5%THD
- Output Sine-Wave Filter for ESP applications
- Custom designs to meet customer specifications

SUPPORT SOLUTIONS

- CUSTOM VFD PACKAGES
- HARMONIC FILTER SOLUTIONS
- MOTOR SELECTION
- SINGLE SOURCE RESPONSIBILITY
- TRAINING AND SUPPORT
- INSTALLATION / COMMISSIONING
- TROUBLE SHOOTING / REPAIR



flexible solutions for your motor needs



MOTOR SOLUTIONS

Crossman Automation is a stocking distributor for major motor manufacturers such as: Elektrim; Elektrimax; US Motors; Brook Crompton along with access to several other manufacturers worldwide. With our experience, we can source motors for any industrial or oil field application to meet the required specifications and approvals. As a full Drive Systems Integrator, we can provide a motor to best suit the application and take single source responsibility.

MOTOR SELECTION

- Low and medium Voltage
- Horizontal and Vertical mount
- NEMA and IEC Frames
- NEMA Explosion Proof
- IEC Flame Proof Exd
- IEC Increased Safety Exn
- ATEX / GOST / CE



PCP & BEAM PUMP VFD

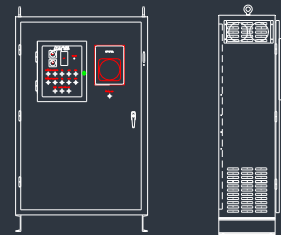


ADDITIONAL PRODUCTS

- DANFOSS Soft Starters
- NEXEN Pneumatic Brakes and Clutches
- LINEAR Control Devices
- CABLE and CONNECTION Kits
- POWER Transmission Products
- EQUIPMENT Procurement for Export

INDUSTRIES SERVED

- Mining
- Forestry
- Oil and Gas
- Petrochemical
- Manufacturing
- Food Processing
- Water Treatment
- Export OEMs



VARIABLE SPEED DRIVES

Engineered Variable Frequency Drives to your custom specifications or Crossman Automation off-the-shelf drive designs.



CUSTOMER SERVICES

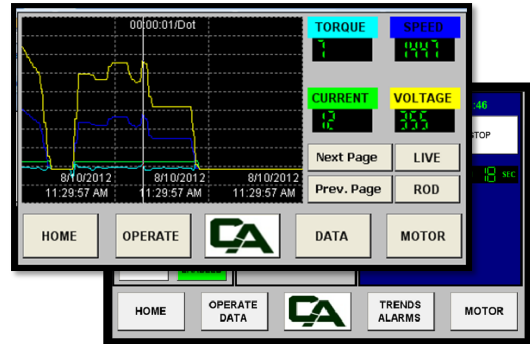
Field Training and Start-up.
Field trouble shooting and repair.
Field Survey: establishing solutions.
Harmonic and Power quality analysis.
Remote Monitoring Survey, SCADA.

VSD SYSTEM INTEGRATOR

VFD/VSD DRIVE SOLUTIONS

Crossman Automation provides engineering and manufacturing of Variable Frequency Drives for Industrial and Oil field applications. We are a Systems Integrator, offering our standard designs and custom engineered designs, specific to your application and environment. Artificial Lift ESP and PCP are achieved with our Crossman Elliot Touch Screen Motor Controller,. BEAM, ROTOFLEX are achieved with patented Sensorless Artificial Lift Technology (S.A.L.T.) Well Manager Interface.

- Standard 6-Pulse and 12-Pulse Drives
- Advanced Harmonic Filtered (AHF) Drives 5-10%THD
- Low Harmonic Drive (LHD) IGBT Active Filter <5%THD
- Output Sine-Wave Filter for ESP applications
- Custom designs to meet customer specifications



ESP VSD DRIVE SOLUTIONS

TYPICAL ESP VSD PACKAGE: S INCLUDE:

DESIGN: Manufactured and tested for Electrical Submersible Pump (ESP) application in DESERT/JUNGLE/ DUST AND RAIN PROOF. Nema 3R, Ventilated with filters, Paint: rust proof and powder coat paint, white.

CONTROLLER: ESP Elliot Touch Screen ESP Motor Controller with Data logging, ESP Back-spin/Ground Fault sensing and Bristol Amp Chart Recorder.

INPUT: ACTIVE FRONT END (AFE) <5% THD, >.95 PF (Other input configurations are available) with Main Circuit Breaker protection, Surge/lightning arrestors, 380V/415V480 VAC 3 phase input, +/- 10% permitted tolerance,, Prepared for cable entry and exit via gland (connector) plates.

OUTPUT: 0-480 VAC 3 phase PWM (With Sine-wave ESP Filter rated for full load), Adjustable Frequency Output, Continuous Rated Full Load Current, Normal Overload Capacity: 120% Rated full load current for 1 minute, Volts/ Hertz Pattern: Constant Torque, Mechanical Lugs for cable connection.

COMMUNICATION: Scada ready with Isolated Communication Card (RS-422/485, Modbus RTU) + Data Gathering Logger with PC software to download.



ESP VSD



VSD HARMONIC SOLUTIONS and TESTING

Crossman Advanced Harmonic Filtered (AHF) Drives 5-10%THD
Crossman Low Harmonic Drive (LHD) IGBT Active Filter <5%THD

BENEFITS of AHF over LHD IGBT Active Front End for small HP applications:

- AHF is lower cost to the customer for small HP VSDs
- AHF reduces input harmonics to meet IEEE-519 as does the IGBT Active front end
- AHF is less maintenance (less components) and has and won't cause production loss. IGBT Active front end can have problems causing production loss as the drive is dependant on the many components that could fail in the IGBT Active front end.
- AHF has less stress to the Motor over an IGBT Front End.

BENEFITS of LHD IGBT Active Front End over AHF for large HP applications:

- LHD is lower cost to the customer at higher HP
- LHD reduces input harmonics to meet IEEE-519 as it injects equal and



AHF and LHD DRIVE HARMONIC SOLUTIONS

What are Harmonics?

Harmonics are a steady state distortion of the electrical sine wave. Most often called the THD (total harmonic distortion), it is referred to in percent. THD is also broken down into an ITHD (for current) and VTHD (for voltage). Diagram 2 illustrates the difference between a harmonic contaminated sine wave (upper) and a normal sine wave (lower).

What generates Harmonics?

Harmonics are generated by non-linear load on your electrical distribution. Variable frequency / speed drives are common culprits. Arc welders, DC rectifiers and soft start motors (on start up only) are also contributors. To make matters more complicated, harmonics can also be imported into your electrical distribution from your utility...the welding shop down the road from you could be the cause of your motor's early retirement!

VFD/VSD QUALITY CONTROL TESTING:

Our quality control standards are high. Our goal is always to deliver exceptional customer service and high quality, cost effective products to your industry.
Your satisfaction is of paramount importance.

At Crossman, all Variable Speed Drive are manufactured and tested in a Canadian Standards Association (CSA) and The following are the tests performed on each VSD prior to export packaging and shipping:

- Incoming Inspection Check
- Visual Inspection
- Tightness Check
- Megger Test
- Dielectric Test
- Electrical Inspection
- Ohmmeter Test
- Semiconductor Test
- Input Rectifier Test
- IGBT Test
- Control Power Test
- Base Driver Pulse Test
- Output Waveform Test
- Reduced Voltage Output
- Sequence Check
- Voltage Maximum Test
- Current Max. Load Test
- Function Test
- Full Voltage Load Test without motor
- Full Voltage Load Test with motor
- Final Inspection

ELLIOT ESP MOTOR CONTROLLER

ELLIOT ESP Motor Controller

ESP and PCP VSD /VFD Motor Controller

ELLIOT ESP MOTOR CONTROLLER

Operate your well in a way that makes sense. ESP language helps operations program the drive with confidence making use of ESP settings without complicated drive interfaces. HMI's have helped operations control complicated equipment by presenting relevant information in an easy to follow format.

ELLIOT speaks the language of the ESP world.

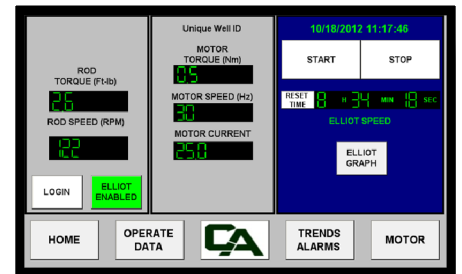
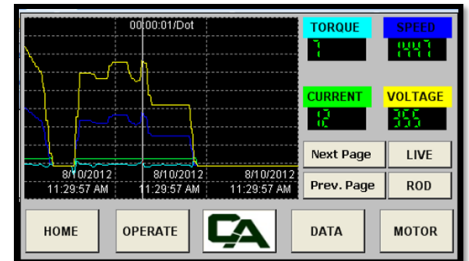
- Extended ESP run life
- Protection from a wide variety of down hole problems
- Simple operation, even for an inexperienced operators
- Backspin protection
- Highly reliable, even in hostile environments

Operate:

Easy to read and program with a 7" viewing screen.
Set voltage and current limits on ESP motor.
Set-up your own password protection (multiple levels)
Backspin and ground fault protection.
Auto-restart feature with re-start delay timer.
Pressure switch, trip notification.
ELLIOT STEPS for automatic well control.

Data:

Take your data from the well to the office with a USB.
View real-time trends and data on site.
Historical Data trends and alarms accessible on site.
SCADA capable with multiple industrial protocols to meet your telemetry needs. Alarm logs and fault history of drive and ESP Motor operation



ELLIOT ESP PROTECTION

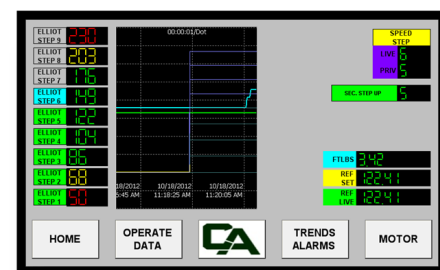
Elliot ESP Motor Controller reduces electrical failures in ESP Motors. It monitors a wide range of motor and power line characteristics and protects the motor from damage caused by irregularities. The Elliot Motor Controller looks everywhere for potential problems:

- Down Stream
- At the Motor Operation
- Upstream.
- Incoming Power
- Outgoing Power to the ESP Motor

By anticipating more possible failure modes, the Elliot ESP Motor controller offers better protection. This improved protection greatly reduces the number of down hole electrical failures.

The Elliot ESP Motor Controller protects the motor from the following load problems: Overload, Underload and Current Unbalance.

The Elliot ESP Motor Controller also detects problems with the incoming power. These must be detected separately from the above load problems, as it is often necessary to take different action if a problem is supply-related. The following power problems are monitored:



- Prevention of excessive restart attempts by operator
- Prevention of restart by operator after lockout
- Prevention of restart by operator until a minimum cool down period has elapsed
- Prevention of adjustment of protective setpoints

ELLIOT has been designed as a standalone device, not specific to any one VSD in use today.

ELLIOT PCP MOTOR CONTROLLER

ELLIOT PCP Motor Controller

ESP and PCP VSD /VFD Motor Controller

ELLIOT Progressive Cavity Pump Monitor

Operate your well in a way that makes sense. PCPump language helps operations program the drive with confidence making use of PCPump settings without complicated drive interfaces. HMI's have helped operations control complicated equipment by presenting relevant information in an easy to follow format. ELLIOT speaks the language of the PCPump world.

- Polish Rod Torque
- Polish Rod Speed
- Backspin
- Gear Ratio
- Motor Nameplate Data

Operate:

Easy to read and program with a 7" viewing screen.
Set speed limits, torque limits on polish rod.
Set-up your own password protection (multiple levels)
Backspin timer prohibits re-start into spinning motor.
Auto-restart feature with re-start delay timer.
Pressure switch, trip notification.
ELLIOT STEPS for automatic well control.

Data:

Take your data from the well to the office with a USB.
View real-time trends and data on site.
Historical Data trends and alarms accessible on site.
SCADA capable with multiple industrial protocols to meet your telemetry needs. Alarm logs and fault history of drive and Polish rod operation

Cost Savings:

Drive commissioning time.
Step by step programming reduces training.
Trend pump performance over run life.
Auto Restart saves on site trips.

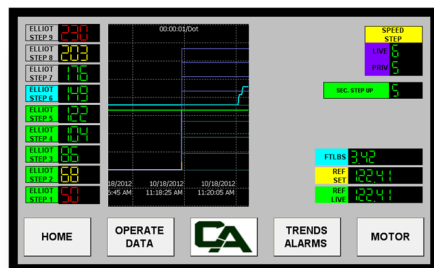
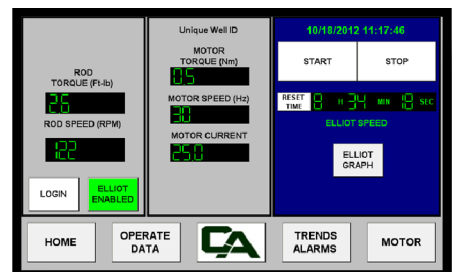
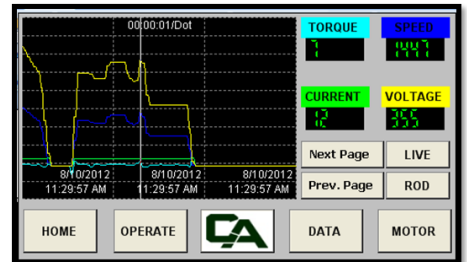
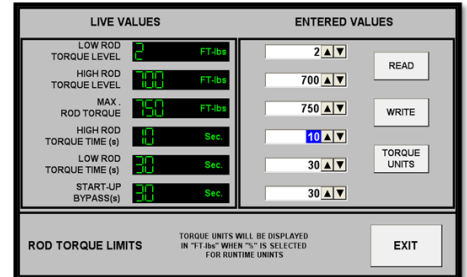
ELLIOT STEPS

Elliot Steps is an automatic self adjusting program based on motor load changes from the initial speed set by the operator. No external references such as differential pressure, flow, speed detector or torque transmitter are required. Elliot Steps will adjust speed within the maximum and minimum values from the initial settings for both speed and torque.

The changes are an averaged incremental value based on the initial speed relationship to the maximum and minimum rod speed. For example if the max/min speed references are 200/50rpm and the set value is 160rpm Elliot steps would be 4 increments of 10rpm above set point and 6 increments of 18rpm below set point.

The rate and duration of load changes will determine which Step is initiated within the limits of speed and torque. At no point will the shutdown values be exceeded or reset.

NOTE - ELLIOT STEPS is designed to be an optimization tool only from monitoring changes in the motor load, we cannot assume that a well has reached Pump-Off state but merely that the minimum value setting has been reached for whatever reason.



ELLIOT has been designed as a standalone device, not specific to any one VFD in use today. Presently it has been configured for the Danfoss FC300 series industrial drive and Eaton SVX9000 series. As more are added the list will be updated

BEAM PUMP –OFF CONTROLLER (S.A.L.T.)

Drives Systems for Increasing Oil & Gas Production

What is SALT?

Sensorless Artificial Lift Technology (SALT) is a patented methodology that uses a sensorless vector variable frequency drive (VFD) with built-in pump-off software. It is the most advanced artificial lift system control on the market, outperforming all existing artificial lift controllers.

A Crossman VLT® Series drive designed specifically for oil field applications uses the relationship of the motor's rotor to the stator to determine load and regulate speed. A global leader in variable frequency drive technology, Crossman offers innovative and technologically advanced products backed by a superior service and technical support network. With \$4 million in annual sales revenues, the Crossman name and VLT trademark are synonymous with quality and reliability. Crossman maintains local service through a global presence with manufacturing, sales and service centers worldwide.

Unlike standard pump-off controllers, which shut off the pump during periods of low production, SALT reduces the

pump speed, maintaining and maximizing production while reducing energy consumption and mechanical stress.

SALT also provides warning capabilities for conditions such as pump off, paraffin buildup, gas pockets, failure to recover, and maximum and minimum loads. These warnings, as well as information regarding the number of strokes per day, inferred production and gas purges are all maintained in a log that reports pump activity from the previous **thirty days**. All of this functionality is built directly into the drive, eliminating the need for an external surface or pump card. SALT also eliminates the need for dynamic braking, which not only reduces equipment costs, but also simplifies installation and maintenance.

SALT is a versatile technology that offers significant advantages to all types of ground pumps, including beam, progressive cavity and submersible pumps. It can even be used to automate horizontal pumps, providing level control and event notification.



[click to watch SALT video](#)

SALT Advantages

Ease of use

SALT has been designed specifically to be user friendly. It takes as little as 15 minutes to set system parameters during initial setup procedures. Basic information and control components are displayed prominently on the front of the unit, providing instant access to system status. Additional levels of control and data retrieval are available using a variety of access methods.



A panel located on the front of each SALT unit provides immediate access to basic control capabilities and status information

Multiple levels of control

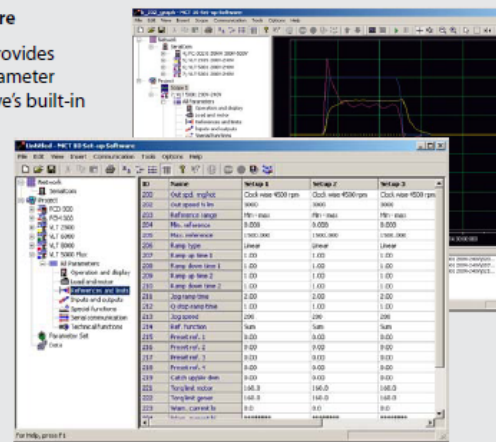
Keypad

With onboard help and an intuitive menu structure, the SALT keypad provides graphical information and access to all parameter settings. These settings can be uploaded to and downloaded from the keypad, which greatly simplifies restart procedures and minimizes downtime in service situations. LED indicators provide basic status information and dedicated buttons enable one-touch access to commonly used functions.



MCT 10 PC software

MCT 10 software provides PC access to all parameter settings via the drive's built-in USB or RS485 ports. MCT 10's Windows-based interface allows extensive, centralized control for streamlined programming and monitoring.



FSD SWITCHBOARDS 600V ESP

(380V or 480V Operating)

CAI 600V ESP FSD Switchboards are constructed with highest quality both inside and out. Our designs range from Desert to Jungle to Arctic environments for ESP applications whereas surface voltage can range from 380V to 415V to 480V. We are using the latest ESP controller with Backspin Relay as per customer specifications. Standard designs are Size 3 (110A), Size 4 (180A) and Size 5 (300A).

ENCLOSURE:

- NEMA 3R, (IP-54) 12 gauge steel weatherproof enclosure.
- Welded construction with no overlapping surfaces to rust, corrosion treated, phosphate washed and etched.
- Powder coat paint with silk screened labels and warnings.
- Separate high and low voltage compartments with wiring separated as per code.

Low Voltage Compartment containing Motor Controller, PT Secondary fusing and other low voltage components.

High Voltage Compartment containing 600V Components for operation at 380-480V: Breaker, Contactor, Current Transformers, Potential Transformers (PT), PT primary fusing and other 380-480V components.



CONFIGURATION:

- Multi tapped potential and current transformers to cover a large range.
- Main Circuit Breaker interlocked with the contactor and high voltage door.
- Vacuum contactor
- All key internal components are marked and labeled for ease of commissioning and operation
- All wiring and grounding to code, marked with wire markers and labeling
- Operators and Lights are Nema 4 rated.
- Operation manuals and easy to use start-up guides enclosed.
- Warning labels in both English and one additional desired language
- Canadian Standards Association (CSA) approved designs. NEC, IEEE also incorporated.

FSD SWITCHBOARDS 700-5000V ESP

(700V or 5000V Operating)



CAI 700V to 5000V ESP FSD

Switchboards are constructed with highest quality both inside and out. Our designs range from Desert to Jungle to Arctic environments for ESP

applications whereas surface voltage can range from 700-5000V, 0-400A. We are using the latest ESP controller with Backspin Relay as per customer specifications.

ENCLOSURE:

- NEMA 3R, (IP-54) 12 gauge steel weatherproof enclosure.
- Welded construction with no overlapping surfaces to rust, corrosion treated, phosphate washed and etched.
- Powder coat paint with silk screened labels and warnings.
- Separate high and low voltage compartments with wiring separated as per code.

CONFIGURATION:

- Multi-tapped potential transformers to cover a large range of 700-5000V
- Multi-tapped current transformers to cover a large range of 0-400A.
- Fused isolated disconnect switch interlocked with the contactor and high voltage door.
- Vacuum contactor
- Backspin Detection of ESP motor.
- All key internal components are marked and labeled for ease of commissioning and operation
- All wiring and grounding to code, marked with wire markers and labeling
- Operators and Lights are Nema 4 rated.
- Operation manuals and easy to use start-up guides enclosed.
- Warning labels in both English and one additional desired language
- Canadian Standards Association (CSA) approved designs. NEC, IEEE also incorporated.



ESP DOWN HOLE SENSOR DHS

ESP DOWN HOLE SENSOR (DHS): DESIGNED FOR CONTINUOUS DOWN HOLE PUMP MONITORING

We are a company committed to progressive technology enabling optimized reserves recovery. As technologists we know that cutting edge technology today is mainstream tomorrow and we are committed to high performance systems where they are required (deeper, hotter production) and cost effective technology at all times.

Our permanent gauge sensor product line standardizes where possible. The Surface Read Out can be used with all of our permanent gauges - TEC, ESP. Gauge carriers are the same on TEC and ESP completions (a standard gauge carrier is used at discharge on ESPs). Standard Tubing Encapsulated Cable (TEC) is used to connect together our gauges, even from the ESP gauge to the upper permanent gauge we use for discharge monitoring. A standard permanent gauge is used for discharge monitoring enabling pressure, temperature and vibration analysis at discharge for the first time on an ESP.

Well Considered Designs:

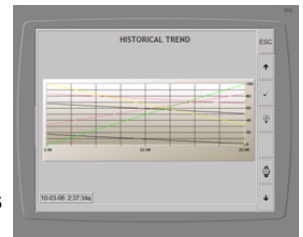
At Crossman you should always expect user friendly technology - simplified gauge test systems, Windows long file name file system, MMC/SD flash cards for years of data logging, Excel format logging files. USB and Portable Data Collector (PDC) also available.

Field Service:

Even though we have Service Engineers capable of assisting you we are committed to training and supporting you. Crossman will go to your field to optimize support.

Engineering Support

Technology does not stand still. Technology within Crossman does not stand still - it is the lifeblood of our company. Talk to us for all of your special needs.



Specifications subject to change

Downhole Instrument (not including motor adapter)

Transducer Type	Silicon Strain Gauge
Pressure Range	0-3000 PSI, 0-5000 PSI
Pressure Accuracy	0.25% BFSL; 2% total over full temperature range
Pressure Resolution	1 PSI
Temperature Range (Instrument)	32°F - 257°F, 0°C - 125°C
Temperature Range (winding transducer)	32°F - 500°F, 0°C - 260°C
Instrument Diameter	3.75"
Instrument Length	18.5"
Instrument Weight	35lbs, 15.9 kG
Instrument Metallurgy	1020 CS or 316 SS

Surface Readout

Power Required	115VAC +/- 15% 50/60Hz
Display Type	6 digit Alpha Numeric LED
Motor Controller Connection (Isolated)	Tornado F5 / Commander III Series Interface
Modbus RS-485 (Isolated)	2 Wire standard.
Modbus RS-232 (Isolated)	3 wire, no handshaking required.
Operating Temperature	0°F - 158°F, -18°C to 70°C
Readout Dimension	6.00" x 5.25" x 2.25"
Readout Weight	1.5 lbs

High Voltage Choke Assembly

Maximum AC Voltage	5000 VAC
Fuse Rating	1/8 Amp
MOV type	Field replaceable.
Enclosure Type	NEMA 4, 4X, 12, 13
Operating Temperature	0°F - 158°F, -18°C to 70°C
Dimensions	18" x 16" x 9"
Weight (in enclosure)	53 lbs



SKID PACKAGES

Variable Speed Drive (VSD) Mobile Skid Unit, Complete with the following:

STEP DOWN TRANSFORMER / VSD - SINE FILTER / STEP UP TRANSFORMER / SKID

***Heavy Duty Portable Oil Field Skid** complete lifting eyes for top crane lift and roller bars on either end for flat bed trailer mobilization in the desert. Steel Skid top lift c/w sunshade and gates

In the center of the Skid we will have an Air vented Control Room which consists of one rooms as follows:

VSD Control Room: VSD/ESP control panel, lighting, enunciator panel on front for operators, Bristol Chart Recorder, convenience outlets .

*Variable Speed Drive ESP (VSD): with VSD output sine filter.

*Step-down Transformer, Typical 6KV to 34.5KV Primary, 460 Secondary for ESP VSD Active Front End Input

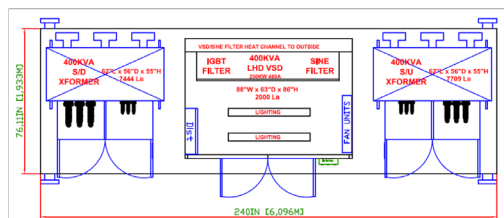
*Step-up Transformer, Typical 460V Primary, Typical 1100-3800V Secondary with 25 taps for ESP

***Auxiliary Distribution panel** includes Control Transformer and circuits for both 120/240V single phase. European type Convenience outlets and lighting are located in the VSD Control Room.

*All cabling, terminations done to specifications with aluminum connectors and ground bushings.

*Data gathering logger with portable memory.

*Skid will be FAT tested prior to release to customer.



Heavy Duty ESP Cable Spooler, designed to spool ESP cable, utilizing standard cable reels, 66 inches (168 cm) wide, up to 90 inches in diameter, suitable for cable up to 24,000 Lbs (10,900 Kg) 80 Series Sprocket, 71 inch ((180cm) Saddles.

Complete with:

*All functions hydraulic, prime mover being 20HP 415-480V, 50 Hz, 3 Ph, Electric Motor

*Hydraulic pump, vane type, rated 14 GPM, 3500 PSI

*Standard Swivel Hydraulic control, for spooling forward & reverse, Max 12 RPM

*Reel rotated on shaft (3" x 0.5" wall C1081/1020 Cold Drawn Seamless Tubing) driven by chain and sprocket 80

*30 gal. hydraulic tank

*Locking tool box

*Headache Rack

*Skid dimensions: 12ft (365cm) Long x 7ft (213cm) Wide, main rails support 8" (20.3cm) I-Beam

*Expanded metal floor, extended lifting ears, 3 each of 4" x 10" fork lift pockets, fixed spool stands

*Control System: , movable spool controls.

*Hydraulic motor is adjustable and slides out of the way when loading and unloading.

*Basic tools for operation (hand tools and grease gun)

*Cable Sheave Mount

*Spares for chain sprockets

*300 ft (91 Meters) of #8, 4 conductor electrical power cord SOOW

*Unit sand blasted, primed and painted machine Gray color.

*Maintenance Schedule

*Instruction Manual.

*Weight: 3350 lbs (1520 kg)

*Dimensions: 365 cm Long x 213 cm Wide (144" Long x 84" Wide)





DANFOSS AUTHORIZED DISTRIBUTOR



Crossman is the Authorized Distributor for Danfoss VLT Drives, an international organization and leader in research, development and production of Variable Frequency Drives. Danfoss is a global company and has net sales of more than USD \$5 Billion, employs over 24,000 people, and has 79 manufacturing sites with support in 120 countries.

DANFOSS PRODUCTS:



VLT® AutomationDrive

VLT® Automation VT Drive

VLT® Micro Drive

VLT® 2800 Series Drive

VLT® Low Harmonic Drive (LHD)

VLT® MCD 500 Soft Starter

Advanced Harmonic Filter (AHF)

Power Option dv/dt Drive Output Filter

Power Option Sine-wave Drive Output Filter

MCT 10 Motion Control Software Tool



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