



CANAM
pipe & supply

December 01/07 Canam Pipe & Supply signed an exclusive agency agreement with CanGlobal Products to represent CanGlobal's line of Rig Instrumentation products. The exclusive agreement covers the areas of the Former Soviet Union (FSU) as well as Albania, Romania, and The Sultanate of Oman.

With over 80 combined years experience in the oilfield instrumentation business CanGlobal Products Ltd. is ideally suited to handle all your instrumentation needs. Whether your needs are simply replacement parts or a full instrumentation package they have the instruments to handle all your needs. All of their products are designed with ruggedness and survivability in mind. CanGlobal's mission is simple; provide superior products and outstanding customer service to their customers.

With CanGlobal's head office situated in Nisku, Canada our environment dictates that their products work in the coldest of the cold in winter to above +50C in the summer. All of their products are designed with ruggedness and survivability in mind.

Take a look over their product line-up and see what we can offer to ensure your drilling requirements are met with quality in mind.

For further information on our products or to place an order, please contact Canam Pipe & Supply.



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Weight Indicator Systems

Wireline Weight Indicator System



Simply to operate, Low maintenance, Accurate Readings for your protection of downhole tools.

Ideally suited for use by Wireline service trucks Our Wireline Weight Indicator systems protect your downhole tool investment by accurately monitoring the line tension to alert the operator of impending problems. These systems are hydraulically operated and come complete with a 6" Fluid filled gauge, Tension Load Cell (Sized for the application), hydraulic hose, hand pump and 1 liter of all Weather Instrument Fluid.

Features:

- 6" Fluid filled gauge with dial faces available in decanewtons, pounds, kilograms, or dual scale
- Available in Box Mount or Panel Mount variations.
- Damper system allows operator to increase or decrease sensitivity easily to monitor the minutest changes.
- Each system is calibrated in our factory and is shipped precharged and ready to use.
- Calibration and line pull certificates are sent with the system.
- Available in the following capacities: 1000, 2000, 3000, 4000, 5000, 6000, and 10,000 pounds. Additional configurations available upon request.
- 3/16" I.D. hydraulic hose with lengths available to 33 meters.
- Optional SMARTLINE electronic software package available to record line tension, depth, tools run and time to run.

Type	Capacity	Load Cell Description
CTC-102-2	2,000 pounds	Light-weight aluminum tension load cell
CTC-104	4,000, 5,000 pounds	Steel tension load cell
CTC-107	6,000, 10,000 pounds	Heavy-duty piston-type cylinder

Benefits:

- Extremely close calibration tolerances ensure the operator of reliable readings to protect your tools while in the hole.
- Designed to operate in the harshest of climates, rated to work in temperatures of -35° to 50° C.
- Systems come in many standard variations and are configurable to many other needs.
- Simple to use allowing the operator to focus attention to downhole conditions and.
- Tension cells are quickly repairable in the field or shop.

To Order Specify:

- System Capacity required
- Dial Reading, English, Metric or dual scale
- Hose length

Deflection-type Weight Indicator



For decades this style of weight indicator has been a favorite for small drilling and workover rigs because of its versatility and compact size.

Each weight indicator is shipped with 10 dials so moving it from rig to rig is easy and by simply changing a dial you can switch between drill line size and number of lines strung. Each Weight Indicator system consists of a Gauge, Deadline Diaphragm connected by a high-pressure Hose and a C-Clamp to attach the diaphragm to the drill line. The deadline diaphragm works on a deflection principle, the tighter the drill line gets the more force is applied to the diaphragm which converts the deflection to hydraulic pressure and sends that pressure to the 12" gauge which displays weight. The whole weight indicator system fits into the steel case for convenient, compact storage. Built-in handles make the entire system easy to transport.

Features:

- 12-inch gauge comes standard.
- Complete set of 10 dials included from 2-lines 7/8" to 8-Lines 1 1/4".
- Weight Indicator has two pointers, one for weight and the other for sensitivity which is a 6:1 ratio and ideal for work such as setting packers and bridge plugs.
- Standard model comes in a compact box. Larger box available to with space for 5 6" gauges and one circular recorder.
- 48,000-pound maximum single-line load with 1" drill line
- 25-foot heavy duty hose standard. Other lengths available upon request
- Circular recorder (optional) can record weight.
- Available in English, Metric and SI Metric

Benefits:

- Ready for immediate use out of the crate. Each system is assembled, calibrated and tested before shipping. System is shipped as a sealed unit from the factory with All Weather Instrument Fluid.
- Two adjustable dampers, one for weight and one for sensitivity allow the operator to have full control of the desired sensitivity.
- Versatile mounting options allows the weight indicator to be mounted just about anywhere on the drill floor but the diaphragm and Indicator gauge should be mounted at roughly the same height.

To Order Specify:

- Dial reading required, English, Metric (kg) or SI Metric (daN)
- Number of Lines strung
- Size of drilling line
- Mast Capacity
- Hose length is different from standard (25' standard)

Midget Weight Indicator Systems



Midget Style weight indicator systems are ideal for Flusby rigs and small Work Over Rigs.

Midget style weight indicators come mounted in a sturdy box for ease of transport. The Midget weight indicator systems provide accurate weight indications for Flushby and small work over rigs. Each system comes complete with a 6" fluid filled gauge with built in damper assembly, heavy duty steel box, 9 meters of high pressure hose, load cell, hand pump and one liter of all weather instrument fluid.

Features:

- 6" dial face on gauge allows clear viewing from long distance
- Rugged design over years of service has proven this gauge to be accurate and dependable in extreme conditions.
- Accurate measurements in extreme conditions — operational in ambient temperature range of -50° to 150° F (-45° to 65° C)
- Accuracy as shipped from the factory of $\pm 1/2$ of 1 percent of full scale capacity
- Midget Weight Indicator System is provided with a 6.53 sq. inch piston type load cell which has a working capacity of 25,000 pounds single line load. Non-Spin model available upon request.
- Super Midget Weight Indicator System comes with a 16.1 sq. inch diaphragm type tension load cell which has a working capacity of 30,000 pounds single line load
- Available in English, Metric, or dual scale divisions
- System is shipped precharged with instrument fluid from the factory and no additional assemble is required.

To Order Specify:

- Single Line Load
- Derrick capacity
- Size of drilling line
- Number of lines strung in blocks
- Required hose length (25-foot standard)
- Dial scale required.
- Style of load cell.

Anchor-Type Weight Indicators



16" Weight Indicator provides drillers with an easy to use and interpret way to track hook load and weight on bit.

16" Weight Indicators come in either a Panel-mounted version or Box mounted. These weight indicators are hydraulic and use a sensor mounted in a deadline anchor to relay a pressure signal through a heavy duty hydraulic hose that turns the signal into a reading on the gauge. This simple to use and maintain Weight Indicator has proven over the years to be accurate and economical.

Features:

- Various models available for deadline loads up to 200,000 pounds.
- Gauge comes complete with 2 dials, inner dial to indicate total hook load and an outer dial to display weight on bit.
- Bit weight indicator (vernier) uses a 4:1 sensitivity movement to provide a highly accurate indication of bit weight.
- System comes standard with a high pressure heavy duty hydraulic hose and disconnects.
- This weight indicator is the center piece of any drillers console and the mounting configuration makes replacement a simple procedure.
- Dampers for weight and vernier make it simple to stabilize the pointers for accurate indications.

Benefits:

- Heavy duty design ensures accuracy even in the most extreme of conditions.
- Large dial face (16") make the gauge easy to read even across the drilling floor
- Suitable for use with all industry standard deadline anchors

To Order Specify:

- Anchor model and part number.
- New application or replacement.
- Box or Panel mount configuration
- Single line load capacity of anchor
- English, Metric, or Decanewton dial reading
- Hose length required

Type C Weight Indicator



For decades this style of weight indicator has been a favorite for drilling and rigs because of its versatility and compact out of way placement.

Each weight indicator is shipped Calibrated to three different line reeving combinations. Each Weight Indicator comes complete with one set of “Line shoes” that are specific to a given line size. The Type C is mounted directly onto the dead line and held in place by a wing nut. The Type C works on a deflection principle, the tighter the drill line gets the more force is applied to the mechanical linkages of the Type C and that in turn converts the deflection of the line into a shown weight on the Type C. The Type C is routinely used as the sole weight indicator or merely as a backup on hundreds of rigs and has proven to be reliable in all types of conditions.

Features:

- Large dial face makes reading very easy.
- One Dial for all line sizes and reeving.
- Weight Indicator has two pointers, one for weight and the other for sensitivity.
- Type C mounts to dead line so need for extra hose runs
- Can be used on all line sizes simple by changing Line Shoes
- Available in English, Metric and SI Metric

Benefits:

- Ready for immediate use out of the crate. Each system is assembled, calibrated and tested before shipping.
- Type C is shipped with one set of line shoes and calibrated to your line reeving.
- Since the Type C is mounted on the dead line it can be placed out of the way and still be readable.

To Order Specify:

- Dial reading required, English, Metric (kg) or SI Metric (daN)
- Number of Lines strung
- Size of drilling line
- Mast Capacity

Wireline Anchors



**MODEL 40,000 LB.
SINGLE LINE PULL**



**CG400 75000 LB.
SINGLE LINE PULL**

Full line of all-weather, quality-built deadline anchors pull capacities from 30,000 to 100,000 pounds

Constructed with top-quality steel and proof-tested to 120% of rated capacity, Our Deadline Anchors are highly accurate, super-strong anchors of exceptional reliability. Wireline Anchors are for use with 16" Weight Indicator Series and Load Sensors.

Features:

- Various models to accommodate common wireline sizes from 5/8 inches to 1-7/8 inches.
- Single pull capacities from 30,000 to 100,000 pounds to accommodate all your needs.
- Heavy Duty for years of trouble free service.

Benefits:

- All Drum surfaces are machined to extend cable life.
- Our Anchors are designed and tested for high strength, long life and exceptional accuracy.
- Quality control procedures test each and every anchor to 120% of rated capacity to ensure reliability and safety.
- Quality and service have combined to ensure you don't have to wait months for an anchor; most common models are stocked in Canada and the USA for quick delivery.

To order specify:

- Size of rig
- Derrick capacity
- Size of drilling wireline
- Number of lines strung

Drillers Console



We offer drillers consoles in many shapes and configurations. Whether your requirements call for a simple weight indicator box or a full stainless steel console we are able to handle the job in short order. We believe that quality is the key to customer satisfaction and we go out of our way to ensure that every product order is handled in a timely professional manner.

Features:

- Many configurations to make to help you make the right decision.
- Available in ALL stainless for harsh offshore environments.
- Consoles are designed to incorporate all of the customer's instrument products in one console that is effective and easy to view.
- Use our products in the console for years of trouble free service
- Fast delivery times

Benefits:

- Every console is designed to maximize driller awareness of his work environment.
- Consultative approach with customer to ensure size and space are maximized.
- Every console no matter how big or small is designed to withstand years of harsh environment service.
- Our factory quality inspections at every stage of the manufacturing process ensure our customers that the console will be delivered right the first time.

To order specify:

- Call Canam Pipe & Supply to discuss your needs.

Mud Pressure Systems

Single Pointer Pressure Gauge System



Gauge provides quick, accurate check of mud pump operation.

Single Pointer Pressure Gauge systems monitor mud pump operations too accurately and efficiently detect potential problems. This 6" gauge has proven itself to be the most cost effective way to monitor pressure. Gauge comes in Box mount or Panel mount configurations. The system consists of a 6" Pressure Gauge, a Gauge Protector (Rubber diaphragm type or Piston Separator type) a high-pressure Hose and hand pump.

Features:

- Standard capacities include:
- 7,000 kPa, 14,000 kPa, 21,000 kPa, 35,000 kPa, 42,000 kPa, 70,000 kPa,
- Also available in PSI, MPa, and BAR capacities
- Gauge Protector comes complete with a 2" Weco 1502 nut and female sub

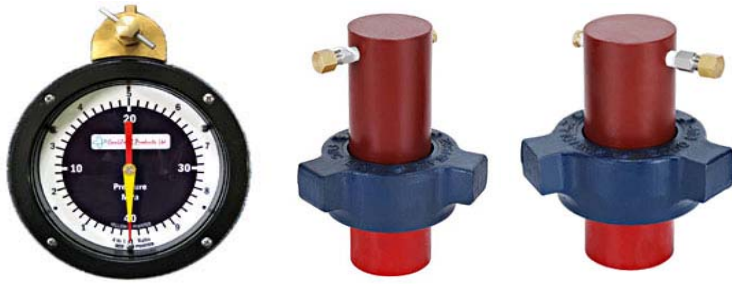
Benefits:

- 6" dial face on gauge allows clear viewing from long distance
- Rugged design over years of service has proven this gauge to be accurate and dependable in extreme conditions.
- Flexibility of mounting design allows gauge to be mounted in a drillers console, bracket mount or panel mounted in a pumping truck.
- 360 degree calibration allows operator to view the smallest pressure changes.
- Damper allows operator to adjust gauge sensitivity to ensure accurate readings in all kinds of pumping conditions.
- Fluid filled to protect the gauge from rig vibrations and frosting in winter.

To Order Specify:

- Application
- Required capacity
- Gauge mounting
- English or Metric divisions
- Diaphragm protector, 1:1 piston isolator or 4:1 deboosters
- Hose length
- Single pointer or dual pointer (compound) gauge .

Dual Pointer Compound Pressure Gauge



Dual Pointer 4:1 Compound Pointer Pressure Gauge Systems

Compound Pressure Gauge systems are designed to provide a quick, accurate display of pump pressure. Main applications are for hydrostatic testing, down hole cementing operations and high pressure fracturing. A 360 degree sweep dial makes one full rotation while the 4:1 Vernier needle makes 4 full rotations so even the smallest pressure changes can be seen.

The system consists of a 6-inch Pressure Gauge, a Gauge Protector, and a high-pressure Hose.

Features:

- Standard capacities of;
- 40 mPa, 80 mPa, 120 mPa,
- 4,000 p.s.i., 8,000 p.s.i. 12,000 p.s.i and 16,000 p.s.i.
- 400, 800 and 1200 kg/cm²
- Diaphragm Rubber Gauge Protector comes complete with Weco 2" NPT 1502 wing nut and female sub.
- Optional 1:1 Piston Separator comes complete with Weco 2" NPT 1502 wing nut and female sub.
- Operational temperature ranges of -50° to +150° F (-45° to +65° C)

Benefits:

- 6" dial face for easy viewing.
- Rugged, accurate and dependable for years of trouble free service.
- Flexible mounting design makes this gauge perfect for use on oilwell pumping trucks.
- Full 360 degree pointer sweep indicates the smallest pressure changes.
- Operator-adjustable damper allows for more accurate readings under extreme conditions.
- Gauge is fluid filled.
- Standard capacities up to 120 mPa
- Available in English or Metric.
- Available in box mount design or panel mount design.
- Vernier pointer offers for indicating the smallest pressure changes.
- Operator adjustable dampner to allow full control of gauge sensitivity.
- Accuracy rate of +/- 1 percent of full capacity
- Available with diaphragm protector or 1:1 piston isolator sensor.
- Measurements can be easily recorded on Our hydraulic circular recorders or Our electronic recorder.

To Order Specify:

- Required capacity
- Hose length
- Gauge mounting (Box mount or Panel Mount).

Unitized Standpipe Pressure Gauge



We offer Standpipe pressure gauges that come standard with a 2" male NPT, 2" Weco 1502 hammer union type and flanged type. These gauges are easily viewable at distances and provide the same reliability as our standard 6" gauges. This style of gauge is ideal for mud pumps, stand pipes, choke manifolds and pump trucks.

Features:

- Large 6" dial face is visible up to 60 feet away.
- Replaceable diaphragm cup, check valve and damper assembly
- Standard capacities;
 - 0 – 7,000 kPa
 - 0 – 14,000 kPa
 - 0 – 21,000 kPa
 - 0 – 35,000 kPa
 - 0 – 40,000 kPa
 - 0 – 70,000 kPa
 - 0 – 100,000 kPaOther pressure ranges are available in P.S.I., kg/cm², MPa, and BAR units of measure.
- Dial available dual scale divisions.
- Hammer union style available in 2" 1502 for standard service applications.
- Flange style Unitized Gauges are available in a variety of flange sizes. Please contact Canam Pipe & supply for more info.

Benefits:

- Bourdon tube style 6" Fluid Filled gauge complete with built in Damper gives operators the ability to dampen signal so slight changes in pump pressure can be seen.
- Stationary dial and moveable pointer is easily seen unlike traditional pump gauges where the dial rotates.
- Diaphragm cup easily field replaceable.

To Order Specify:

- Pressure capacity
- Metric, English or dual scale dial reading.
- Standard 2"NPT, Hammer Union or Flange type.
- Standard or H2S service.

CYK Series Standpipe Pressure Gauges



CYK150

CYK100

CYK100B

We offer Standpipe pressure gauges that come standard with a 2" male NPT (other sizes available, contact Canam Pipe & Supply for details). The CYK150 has a large 6" Fluid Filled case for easy viewing at distances. The CYK 100 is ideal for pump trucks and work over rigs. These gauges are easily viewable at distances of more than 60 feet. This style of gauge has been in service on mud pumps and standpipes for decades and has proven to be a low cost, reliable gauge that withstands the rigors of oilfield use.

Features:

- Large dial face is visible up to 60 feet away.
- Moveable dial model available.
- Standard capacities;
 - 0 – 7,000 kPa
 - 0 – 14,000 kPa
 - 0 – 21000 kPa
 - 0 – 35,000 kPa
 - 0 – 40,000 kPa
 - 0 – 70,000 kPaOther pressure ranges are available in P.S.I., kg/cm², MPa, and BAR units of measure.
- Various configurations available and in stock.
- Low Cost alternative.

Benefits:

- This style of gauge provides accurate pressure readings and has built in dampening.
- Liquid filled gauge minimizes vibration and wear to gauge movement.
- Quick and accurate response to pressure changes.
- Stationery dial and moveable pointer is easily seen unlike traditional pump gauges where the dial rotates.
- Low cost.

To Order Specify:

- Model, CTK100, CYK100B or CYK 150.
- Pressure capacity
- Metric or English
- Connection size, standard 2"NPT (other connections available).

Type D Pressure Gauge



Regular Service Salt-Water Service

Type D gauges are designed to provide a quick, accurate display of pump pressure. Main applications are for standpipes and to be mounted on mud pumps. This style of gauge has been in service for many years and has proven to be a tough, dependable and reliable way to monitor pump pressure.

Features:

- Standard capacities of;
- 7000 kpa, 21,000 kpa, 35,000 kpa, 40,000 kpa
- 1,000 p.s.i., 3,000 p.s.i. 5,000 p.s.i and 6,000 p.s.i.
- 70 Bar, 210 Bar 350 and 420 Bar
- 2" Nutted version available
- Operational temperature ranges of -50° to +150° F (-45° to +65°C)

Benefits:

- 5" dial face for easy viewing.
- Rugged, accurate and dependable for years of trouble free service.
- 2" NPT female thread
- Built in dampening
- Gauge is fluid filled for extra dampening.
- Available in English or Metric.

To Order Specify:

- Pressure Range
- Dial Capacity
- Gauge mounting (Box mount or Panel Mount).

Pressure Gauges

Pressure Gauges



Pressure gauges are designed to provide long lasting, accurate and dependable readings. No matter what your application we have the gauge to fill your needs. From a brass bottom mount to a SS center back mount we stock an extensive inventory for every requirement.

Features

- Liquid Filled for extra dampening
- Laminated Safety glass window
- Adjustable pointer
- 2.5", 4" and 6" models available

Benefits

- Various sizes and models stocked
- All SS case
- Brass or SS internals available
- Rugged design for long lasting performance
- Available in numerous pressure ranges
- Metric, English or dual scale dials

To order specify

- Dial size required
- Internals (SS or Brass)
- Dial reading required
- Bottom connection required

Recorders

Portable Pressure Recorder



Circular Chart Recorders

Our 12" circular chart recorders are built to operate in the most rugged of climates. They have proven to be extremely dependable and are available in numerous configurations. Recorders come in either truck mount configurations or portable configurations to meet your every demand. All recorders are available with various clock options and pressure ranges. Dual Pen recorders are capable of recording two pressure inputs simultaneously.

Features:

- Comes in Truck Mount or Portable variations.
- Available in 1 or 2 pen versions.
- Can be calibrated for use up to 15000 p.s.i.
- Highly accurate, calibrated to within +/- 1% of full scale accuracy.
- Available in Metric or English versions
- Gauges built into base upon request
- Comes complete with 1 box of charts, hand pump and 1 litre of all weather Instrument Fluid.
- High pressure hose and disconnects available.
- Optional rubber cup type diaphragm protector, 1:1 piston isolator available. Sensors come complete with Weco 2" 1502 type wing nut and female sub.

Benefits:

- Industry standard design allows operators to stock one line of recorder charts and expendables.
- Recorder design allows replacement with no modification to mounting boxes or additional operator training.
- Portable model uses standard 6" fluid filled gauge.

To Order Specify:

- Pressure range or capacity to be recorded.
- Portable or truck mount.
- Number of pens required.
- English or Metric
- Gauges required in base, yes or no.
- Sensor requirements.
- Hose requirements.

Torque Systems

Tong Torque & Tong Line Pull Systems



Our Tong Torque Systems accurately indicates torque applied to oilfield tubulars as they are run thereby reducing under and over torquing which can cause tubular failure. Each system consists of a hydraulic load cell (tension or compression type), shackles (on tension type models), hose assembly, 6" fluid filled gauge with damper assembly and recharge kit consisting of hand pump, and 1 liter of all weather instrument fluid. The two main types of Tong Torque Systems are:

Tong Line Pull — Indicates make-up or break-out torque (in pounds of line pull) for tool joints, drill collars, and drill string components. This type of system is used in applications where there are more than one set of tongs being used with different handle lengths. A 6" fluid-filled gauge reads directly in pounds of line pull which works in conjunction with a load cell that is connected directly to the tong handle. As each joint is made up, line pull is converted to a hydraulic pressure signal within the cylinder and sent to the gauge via a rubber hose, the gauge displays this signal as pounds of line pull. To determine the actual torque being applied you multiply the gauge reading by the tong handle length in feet. The gauge comes complete with a target pointer that the driller sets to a corresponding torque requirement. A large variety of systems are available with up to 30,000 pounds of single line pull. Metric, English or dual scale systems are available.

Tong Torque — Indicates torque in foot pounds applied to each joint when using power tongs to run oilfield tubulars. These systems are available for all makes and models of power tongs and come with either compression or tension type load cells that provide an accurate check of make up torque for all oilfield tubulars. Dual scale variations are also available. Rugged, simple load cell designs guarantee extra long life and ease of maintenance.

Tong Torque Systems consist of a Tension or Compression Load Cell, 6" fluid filled Gauge, 5' hydraulic hose (additional hose lengths available), fluid hand pump and 1 liter of all weather instrument fluid

CTP Series:

- Indicates make-up or breakout torque (in pounds of line pull) for all oilfield tubulars.
- 6" fluid filled gauge.
- Operator adjustable target pointer that the driller sets to a corresponding torque requirement.
- Models and variations of available to work with all manual tongs.
- Capacity ranges from 10,000 pounds to 30,000 pounds of line pull. English, metric and dual scale dial readings available. Customer logo on dial available.

CTT Series:

- Indicates torque in foot pounds applied to each joint when using power tongs to run oilfield tubulars.
- Models available for all makes and models of power tongs.
- Tension or Compression style load cells available for use in all power tong configurations.
- Wide variety of capacities available to suit all applications and tong configurations.
- English, Metric or dual scale variations available.

Benefits:

- Systems designed and built for the rugged requirements of the oilfield. Load Cell's are designed to ensure a long service life with minimum maintenance.
- 6" Fluid filled gauge has years of proven reliability and ease of maintenance.
- Target pointer on gauge helps operator maintain accurate torque.
- Box mount or panel mount configurations available.

To Order Specify:

- Tong make and model as well as dial capacity and scale required.
- Box Mount or Panel Mount.
- Hose length required if different than standard (5' for CTT series standard and 25' for CTP series standard).
- Tension or compression type load cell.

Torque King Kick-Out System



Delivers reliable torque kick out for any rig that torques drill pipe or drill collars.

Available in explosion proof or standard configurations, the Torque King is useful to control over-torque situations of drill pipe and drill collars as they are being made up. Dual settings let the operator set torque for drill pipe on one channel and drill collars on a separate channel. System hooks into a Tong Line Pull System and provides accurate indications of torque to all makes of tubulars. Once the desired torque is reached the Torque King kicks out the hydraulics that control the make-up for a predetermined (operator settable) time before reengaging the hydraulics. Power Tong model is also available with one torque setting.

Features:

- Rugged duty enclosure for oilfield use
- Available in one or two channel models
- System has operator-adjustable torque settings
- Hydraulic kick out valve sized for you application

Benefits:

- Set torque limits once and never worry about over-torque again
- Reduced damage to tubulars due to over-torque
- Increased crew safety due to operator fatigue. Set once never worry.
- Connects easily to Tong Line Pull or Tong Torque Gauges.

To Order Specify:

- One of Two Channel model
- Tong handle length
- Maximum torque required
- Power Cable Length
- Hose length (25 feet is standard) to connect Torque Minder to gauge system

Hydraulic Rotary Torque System and Rotary Alarm



Rotary Alarm (Optional)

Our Hydraulic Rotary Torque System is designed for use on rigs that use a chain driven rotary table. The system displays a relative indication of rotary torque to alert drillers of changes in the drilling parameters to help avoid twist offs. With the use of the additional Rotary Alarm the system can be set to kick out automatically at a pre set torque value or to turn on an audible alarm. We can also supply Rotary Torque systems to rigs that use a drive shaft type rotary table (Please contact us for additional information). System consists of a 6" Fluid filled gauge in either a box mount (damper attached to gauge) or Panel Mount (remote damper), Ider assemble with rubber wheel or chain sprocket, hydraulic hoses and couples as well as a recharge kit that consists of a hand pump and 1 liter of All Weather Instrument Fluid ordering) and recharge kit consisting of hand pump and 1 quart of instrument fluid.

Benefits:

- Provides early warning of impending over-torque situations and helps with decisions regarding bits and torque patterns.
- With the use of the additional Rotary Alarm the rotary table can be disengaged automatically OR a audible alarm can be activated to warn the driller of dangerous torque levels.
- System has been in use world wide for many years and has proven to reduce torque problems such as twist offs.

Features:

- Rugged 6" Fluid Filled gauge can be box mounted or panel mounted.
- Gauge readings are all relative indications of torque only
- Adjustable dial so gauge can be re-zeroed as pipe weight increases
- With the addition of the Rotary Alarms auto kick out feature operators can be assured that over torque situations are under control.

To Order Specify:

- Gauge reading 500 or 100 points
- Hose Length
- Box or panel mount
- Rubber wheel or chain sprocket (specify chain size)
- Length of hose
- Rotary Alarm power requirements (if required)

Mechanical Rotary Torque System

Delivers reliable torque measurements for rigs that use chain-driven rotary tables.

Available in box-mount or panel-mount configurations, the Hydraulic Rotary Torque System provides accurate indications of changes in torque for rigs that use chain-driven rotary tables. Each system includes an Idler assembly and a Gauge.

Features:

- 6-inch fluid-filled Gauge
- Available in 500 and 1,000 points
- Gauge has operator-adjustable dial to zero out drill string in order to monitor torque at the bit
- Standard 25-foot hose, with other hose lengths available
- Rugged Steel Sprocket available (replaces rubber wheel located in Idler assembly)

Benefits:

- Gauge damper minimizes pointer oscillations caused by drilling and drill string vibration, ensuring accurate readings and increasing the life-span of the gauge.
- Helps driller know when to change drill bits by indicating hole conditions and torque patterns.
- Increases safety and optimizes drilling efficiency by providing warnings about possible twist-offs, locked cones on the bit, out-of-gauge holes, and formation changes.
- Connects easily to our drilling recorders to track and record trends.

To Order Specify:

- Bracket-mount or panel-mount gauge
- Gauge capacity
- Chain size
- Chain width (single or double)
- Hose length (25 feet is standard)

Hydraulic Roto Torque System and Rotary Alarm



Rotary Alarm (Optional)

Our Hydraulic Rotary Torque System is designed for use on rigs that use a drive shaft style rotary table. The system displays a relative indication of rotary torque to alert drillers of changes in the drilling parameters to help avoid twist offs. With the use of the additional Rotary Alarm the system can be set to kick out automatically at a pre set torque value or to turn on an audible alarm. We can also supply Rotary Torque systems to rigs that use a chain drive type rotary table (Please contact us for additional information). System consists of a 6" Fluid filled gauge in either a box mount (damper attached to gauge) or Panel Mount (remote damper), Sensor assemble, Base mount of flange mount, hydraulic hoses and couples as well as a recharge kit that consists of a hand pump and 1 liter of All Weather Instrument Fluid.

Features:

- Rugged 6" Fluid Filled gauge can be box mounted or panel mounted.
- Gauge readings are all relative indications of torque only
- Adjustable dial so gauge can be re-zeroed as pipe weight increases
- With the addition of the Rotary Alarms auto kick out feature operators can be assured that over torque situations are under control.

Benefits:

- Provides early warning of impending over-torque situations and helps with decisions regarding bits and torque patterns.
- With the use of the additional Rotary Alarm the rotary table can be disengaged automatically OR a audible alarm can be activated to warn the driller of dangerous torque levels.
- System has been in use world wide for over 15 years and has proven to reduce torque problems such as twist offs.

To Order Specify:

- Gauge reading 500 or 100 points
- Hose Length
- Box or panel mount
- Base mount sensor or flange mount
- Length of hose
- Rotary Alarm power requirements (if required)

Depthometers

Mechanical Sandline Depthometer



Easy to use and maintain, gives operators accurate readings of sandline depth.

Hand held Sandline Depthometer's help operators avoid situations that can cause damage to their sandline and possible safety issues with sandline. Mechanical Depthometers can be used on workover rigs, casing set rigs and mining coring rigs. Each Depthometer comes in either Metric or English readings. An optional floor mount bracket is available.

Features:

- Light weight
- Accurate readings even over thousands of Meters
- Ease of use makes this system ideal for all work over applications
- Low maintenance for years of service

Benefits:

- Increases safety and optimizes efficiency by providing warnings about possible sandline out of hole situations
- Low Cost alternative
- Years of proven reliability.

To Order Specify:

- Metric or English
- Carrying case required; Yes or No
- Floor bracket required; Yes or No

Electronic Products

6" Electronic Meter



Our Electronic Meters are the industry standard that all others are compared to. These simple and rugged meters can be used to display and function that you have a requirement for.

Features:

- Panel Mount configuration allows easy replacement of standard 6" hydraulic gauge.
- Electronic movement has proven to be reliable even in the harshest of environments
- We can supply electronic sensor packages to supplement the meter
- Various inputs accepted; 0-5vdc, 0-10vdc, 4-20ma
- 270° sweep or 360° degree sweep

Benefits:

- No hydraulic lines to run
- Built in dampening
- No limits to the applications available
- Easily adaptable to any PLC or as a stand alone meter
- DC Brushless or Taut Band models available
- Analog display of digital signal is far easier to read than digital display

To Order Specify:

- Signal required
- DC Brushless or Taut Band movement
- PLC make and model
- 270° sweep or 360° sweep

8.5" Electronic Meter



Our Electronic Meters are the industry standard that all others are compared to. These simple and rugged meters can be used to display and function that you have a requirement for.

Features:

- Panel Mount configuration allows easy replacement of standard 8.5" hydraulic gauge.
- Electronic movement has proven to be reliable even in the harshest of environments
- We can supply electronic sensor packages to supplement the meter
- Various inputs accepted; 0-5vdc, 0-10vdc, 4-20ma
- 270° sweep or 360° degree sweep

Benefits:

- No hydraulic lines to run
- Built in dampening
- No limits to the applications available
- Easily adaptable to any PLC or as a stand alone meter
- DC Brushless or Taut Band models available
- Analog display of digital signal is far easier to read than digital display

To Order Specify:

- Signal required
- DC Brushless or Taut Band movement
- PLC make and model
- 270° sweep or 360° sweep

Electronic Pit Volume Monitoring System (EPITS)



Designed and built for those rigs that don't require an EDR but still need real-time drilling data to drillers in order to make informed decisions.

Our EPITS system has been developed for those applications that don't require all the features of an Electronic Drilling Recorder but still require the advantage that a PVT system has to offer. The EPITS system delivers crucial mud system parameters at a glance — providing an easy to read system that can detect kicks, lost circulation and pressure changes.

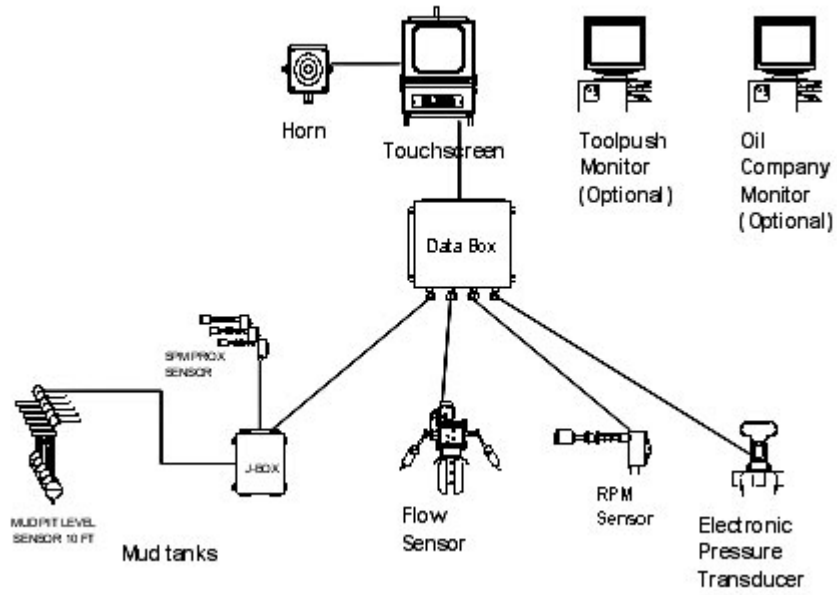
Features:

- Easy to read graphical display on the rig floor that displays EPITS information on pump strokes, mud tank pit volumes return flow rates and other user definable information.
- Extra workstations available (optional) for the Toolpush and Company man that are user customizable.
- High and low audible alarms.
- Trend screen is helpful to determine trends over a period of time
- Rugged touchscreen driller's display unit is designed to operate in harsh environments
- Capable of three mud pumps.
- RPM and SPM
- Capable of 12 active tanks and 2 trip tanks
- Ultra-sonic or stick type probes available.

Benefits:

- Easy to operate and simply to maintain.
- Audible alarms.
- Designed and built to operate in the harshest environments.
- All components are easily field repaired.
- Protects your investment by alerting personnel to impending problems

Typical EPITS Layout



To Order Specify:

- Number of mud pumps
- Number and size of active tanks
- Number and size of trip tanks
- Maximum pump pressure
- Power requirements

Electronic Strain Gauge Load Cells



Designed with the oilfield in mind, we have developed a low cost line tension sensor that fits a wide variety of cable sizes. This unique design does not require the user to cut any cables, it simply clamps onto the cable. The sensor has an extended temperature operating range. Available in both hardwired and wireless configurations.

Features:

- Accurate strain gauge measurement
- Designed for all deadline tension, electronic sensing applications
- Simple clamp-on design requires no deadline anchor.
- Environmentally sealed loadcell operates in the harshest of environments.
- Easy to use
- Installs on wire rope from ¾" to 2" diameter.
- Electronics are protected from reverse wire hook up.
- Custom engineering available.

Benefits:

- Industry standard 4-20mA signal
- Capacity: 100,000 lb. Line tension

Specifications:

- Safe Overload: 150% of rated capacity
- Ultimate Overload: 300% of rated capacity
- Excitation Voltage: 8 to 36 Vdc
- Output at Zero Load: 4.00 mA ± 0.05 mA
- Output at Capacity: 20.00 mA ± 0.05 mA
- Load Cell Calibration Error: less than ± 0.5% full-scale
- Thermal Sensitivity Shift: less than ± 0.01% full-scale /°F
- Thermal Zero Shift: less than ± 0.01% full-scale /°F
- Operating Temperature Range : -40°F to 140°F
- Storage Temperature Range : -40°F to 185°F
- Sensing Element: 700 ohm full bridge strain gages
- Insulation Resistance: 5,000 meg-ohm or better
- Electrical Connector: Brad Harrison P/N 1R4G06A20A120

Automatic Drillers

Automatic Driller



State-of-the-art driller automatically maintains optimum weight on bit.

Our time tested auto driller has proven to be the most reliable auto driller on the market. By sensing deadline tension and automatically adjusting the weight on bit you are assured of a constant weight on bit which allows for maximum ROP's. This automatic driller has proven to reduce driller fatigue while raising the ROP's even in the most difficult drilling conditions.

Features:

- High speed-Low Speed gear unit for various rates of penetration.
- Doghouse control unit is hydraulically activated and receives the weight signal directly from the rig's weight indicator or deadline anchor sensor.
- Our's Auto-Driller components include:
 - Deadline tension sensor
 - Controller assembly
 - Air motor
 - Two Speed differential gear assembly
 - Drum rotation sensor
 - Flex shaft

Benefits:

- Automatic driller has been designed to work in the harshest of environments..
- Reduced Driller fatigue.
- Unit is operated pneumatically using rig air pressure.
- High-Low Speed gear unit allows exceptional control in all drilling conditions and formations.
- Easy to adjust and maintain weight on bit control maintains constant penetration rate.

To Order Specify:

- Draw works Make and Model
- Rated depth of rig
- Distance from drum sensor to High-Low speed gear unit.
- Weight indicator Make and Model

Survey Tools

Floating-style Downhole Survey Tool



This tool is the first of its kind and is simple to operate and very reliable. Our electronic survey tool is temperature tested from -40°C and up to $+125^{\circ}\text{C}$. It can withstand a downhole working pressure of up to 125 MPa. This survey tool system is also compatible with azimuth clocks by using a monel collar. The azimuth clock fits in the same floating running gear for quick easy installation. This tool offers great performance while keeping safety in mind. The floating style tools utilizes up to 4 air chambers which enables quick recovery in the deepest of mud. Also by using 4 air chambers the use of a wireline is eliminated, thereby creating a safer working environment. The electronic survey tool floats back to surface at a speed as high as 120 meters per min. After the electronic survey tool has reached surface you plug the clock into the reader and electronically print out your survey.

Features:

- Four air chambers for fast returns to surface
- Easy to print out survey results.
- Compatible with azimuth clocks
- Rentals Available

Benefits:

- Increased safety
- Elimination of Wireline
- The survey clock is good for up to 180°
- Interchangeable between electronic meter and azimuth clock
- Professional Print outs of each survey