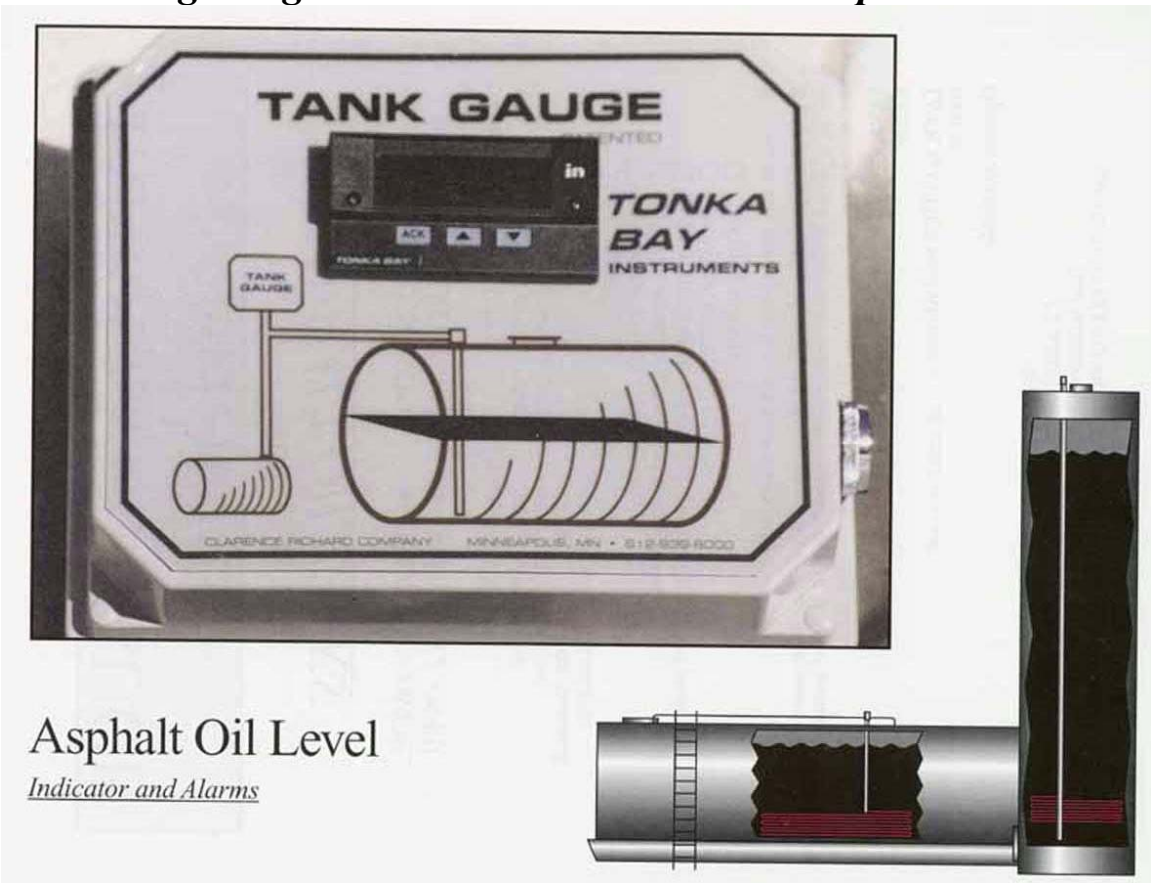
Application Data Form

Tank Gauge..Digital Indicator with Alarms-Pump Control



Name_____ Date_____
Company_____
Address_____
Phone_____ Fax _____
E-Mail_____

Tank Gauge reads in Tenths of an Inch with programmable High and Low Alarms and Pump Control.

Requirements
Product in Tank_____ Product Temperature Range_____
Product Density_____
Accuracy Requirements_____ Tank Gauge accurate to .1".
Tank Gauge Location_____ Tank Gauge may be located in control room (250 feet away) or side of the tank in locations protected from weather.

Tank Information
Tank Description ____Horizontal Cylindrical Tank____Vertical Cylindrical Tank
____ Other …Describe_____
Tank Height____' ___" Ceiling to Floor

Tank Gauge is priced and built differently for level readings **under 12' (Horizontal Tank Gauge** .) and for level readings **over 12' (Vertical Tank Gauge**).

Installation Methods A) Ground Level Tap (Preferred) and B) Suspended Pipe (See Installation Manual)

Horizontal Tank Gauge requires a continuous steel pipe (2" preferable) and Vertical Tank Gauge requires a continuous steel pipe (1" preferable) suspended from tank ceiling to as far down into the tank as possible until reaching coils, fire tubes, tank floor, etc.

Continuous Steel Pipe… How long is pipe from the tank ceiling to the first obstruction reached. ____' _____"

Bottom End of Continuous Steel Pipe.. How far off the bottom shall the pipe end be suspended. ____' ____"

Alarms and Pump Control
Tank Gauge has two programmable contacts capable of sounding alarms, illuminating indicators, starting and stopping pumps, opening and closing valves, cutting out pumps, etc. Each contact can be programmed to actuate at a programmable high level or low level or a high and low level.
Standard High/Low Alarm Program…Tank Gauge is provided with an alarm horn and programmed to sound at a predetermined Low Level (Contact 1) and a High Level (Contact 2) of which the operator can press the Acknowledge button.
Option A High 1-High 2/Low 1 – Low 2 Alarm Program. The same Gauge can be programmed so Contact 1 (programmed High/Low) to sound the horn when level falls below programmed 30.0" level or level rises above programmed 400.0" . Contact 2 (programmed High/Low) to sound the horn *again* when level falls below programmed 20.0" level or level rises above programmed 440.0" .
Option B High 1 Alarm-High 2 Pump Cutout/Low 1 Alarm - Program. The same Gauge can be programmed so Contact 1 (programmed High/Low) to sound the horn when level falls below programmed 30.0" level or level rises above programmed 400.0" . Contact 2 (programmed High) to cutout pump when level rises above programmed 440.0". Pump Cutout can be programmed to be bypassed pressing Acknowledge button.

Level Contact 1.. *Choose a Function* .____ Alarm High Level**(Standard)** _____Alarm High and Low Level **(Option A) (Option B**)_____Cutout Pump _____Start/Stop Feed Pump_____ Start/Stop Discharge Pump

Level Contact 2.. *Choose a Function* .____ Alarm Low Level(**Standard**) _____Alarm High and Low Level (**Option A**) _____Cutout Pump (**Option B**)
_____Start/Stop Feed Pump_____ Start/Stop Discharge Pump

Horizontal Tank Gauge …. <u>under 12'</u>
Method B
Tank Gauge provides air source available during all times product is to be measured so as to continuously purge product from inside pipe. Tank Gauge may be turned off in instances where coking and product build up inside Continuous Pipe does not happen.
Horizontal Tank Gauge requires two ¼" tubes to be connected to indicator box at one end of the tubes and to a tee fitting attached to the top of the continuous pipe suspended in the tank.

Method A does not requires an air source and normally does require an air when not measuring level.

Vertical Tank Gauge…… <u>over 12'</u>
Method B
Requires a clean, dry air source (2.5 cubic feet per hour) during times of measurement. Method B only Suspended Pipe… Where coking and product build up inside Continuous Pipe may happen; Tank Gauge requires air source available during all times product is to be measured so as to continuously purge product from inside pipe.

Method A also requires an air source and normally does require an air when not measuring level.

Caution:
As with any measuring instrument, many things happen to make the work correctly.
It takes just one thing not to work right and the reading can be significantly wrong and operation decisions are made from this reading.

Please follow theses precautions.
User must be aware that system reads high when pressure tube-pipe is plugging or plugged and will read low when tubes are cut or connections poorly sealed or line to sensor is plugged. Electronics fail and connection may become poor, calibration may not be completed correctly, etc; causing readings to be wrong.

Tank Gauge and Clarence Richard Company or associated dealers are to be held harmless for any calibration, equipment malfunction or operating problems. User must understand the equipment and limitations; in order to confirm proper operation, the user shall analyze all methods possible to them to assure the instrument is reading correctly by means such as comparing amount filled in tank and expected amount used and to visually check levels.

<u>Indemnity and Limitation of Remedies.</u>

(a) CRS shall not be liable to Lessee for, and Lessee shall indemnify, defend and hold CRS and its successors and assigns harmless against any claim from a third party for any liability, claim, loss, damage or expense of any kind or nature, whether based upon a theory of strict liability or otherwise, including attorneys' fees and court costs, in any way relating to or resulting from this agreement or the selection, manufacture, rejection, ownership, lease, possession, delivery, installation, maintenance, operation, use, performance, return or storage of any item of Equipment. Lessee's duty to defend and indemnify CRS shall survive the expiration, termination, cancellation or assignment of this agreement and shall be binding upon Lessee's successors and

permitted assigns.

(b) To the extent permitted by law Lessee waives and releases CRS from any liability, right, claim or remedy including but not limited to any claims out of design, construction, manufacture or repair of any product or part, for loss of or damage to any product or part, for loss of use, revenue or profit with respect to any product or part or for any warranty claim not specifically provided for herein and for any liability for CRS' tortuous conduct (actual or implied) except for CRS' intentional tortuous conduct and for any other direct or indirect, or consequential damages.

(c) CRS assumes no responsibility or liability for the problems associated with components and or any components purchased from another source or fabricated by personnel other than those of CRS. Lessee agrees to indemnify and hold harmless CRS from all costs including without limitation attorneys' fees incurred in defending any lawsuit arising from problems with any components purchased from an outside source.

(d) This indemnification and limitation does not affect claims with respect to any item of Equipment relating to or resulting from (a) acts or events that occur after the item of Equipment has been returned to and received by CRS, or (b) the gross negligence or willful misconduct of CRS.

THE TOTAL LIABILITY OF CRS AND ITS SUCCESSORS AND ASSIGNS TO LESSEE AND LESSEE'S EXCLUSIVE REMEDY IS LIMITED TO THE AMOUNT OF RENT FOR THE EQUIPMENT WHICH IS THE BASIS FOR THE CLAIM. CRS SHALL NOT BE LIABLE FOR DAMAGES, INCLUDING SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE PERFORMANCE OF THE EQUIPMENT OR ITS USE BY LESSEE, AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH CRS' FAILURE TO PERFORM ITS OBLIGATION HEREUNDER. NO RIGHTS OR REMEDIES REFERRED TO IN ARTICLE 2A OF THE UNIFORM COMMERCIAL CODE WILL BE CONFERRED ON LESSEE.

Entire Agreement. This agreement constitutes the entire agreement of the parties and all prior oral and written agreements, understandings, representations, warranties, promises and statements of the parties and their respective officers, directors, partners, agents and brokers shall be merged into the agreement with respect to the leasing of the Equipment. No such prior oral or written agreement, understanding, representation, warranty, promise or statement shall be effective or binding for any reason or purpose unless specifically set forth in this agreement.

Authorized Officer

Signature_____
Title_____
Printed Name_____
Date _____

Lessee's exact legal name is as set forth in the first page of this agreement. Lessee is a (Corporation-LP, etc.) _____ duly organized and validly existing under the laws of the State of _____.

Clarence Richard Company
Authorized Officer
3908 Tonkawood Road,
Minnetonka, MN 55345
952-939-6000 FAX 952-939-1026
e mail clarence@clarencerichard.com
web www.clarencerichard.com

Signature_____
Title_____
Printed Name_____
Date_____