

# THE ANTI-COLLISION SYSTEM

Avoid equipment collisions and limit NPT, while improving safety. With over 1000 systems in operation globally, Rigsmart Systems is dedicated to making rigs everywhere safer, more efficient and more effective.

Rig Safety. Made Simple.





### THE ANTI-COLLISION SYSTEM



- The system monitors moving equipment on a drilling rig including: traveling blocks, top drive, bails/elevator, and additional pipe handling systems. Block speed can be controlled for a 'soft stop' in order to prevent collisions between moving equipment, crown, floor and derrick structure.
- The system can be installed on any mechanical, SCR or AC rig, as well as any top drive, drawworks, or traveling equipment.
- A user friendly and customizable interface ensures the most important operational data is displayed at all times.

#### TRIED AND TRUE

Rigsmart has installed more than 1000 systems on drilling rigs around the world, for both land and offshore rigs. The Rigsmart anti-collision system is recognized as an effective solution by every major energy producer globally.

#### PREMIUM SERVICE

Rigsmart technicians have many years of experience on different rig types both onshore and offshore. The personnel are made up of a combination of electricians, instrument mechanics and field programmers. The technicians are qualified to survey your equipment, install and commission your system and above all perform these tasks safely and efficiently with a minimum amount of rig downtime. All field technicians maintain the following safety tickets:

H2S Alive
Fall Arrest/Rig Rescue
BOSIET
WHMIS
TDG
First Aid
Rig Pass
OHSAS 18001 certified.



#### SYSTEM COMPONENTS

Rigsmart Systems is proud to be the industry leader in overall quality and service. Our products are tested in extreme temperature conditions to ensure they are rugged and reliable enough for any jobsite. The modular design of our system also allows for sensors to be combined to deliver any custom solution.



#### **AUXILIARY BRAKE**

Slows the blocks using the rig's existing auxiliary brake. It is activated before a hard stop, once a height limit is breached. The brake controller can be paired with a throttle limiter to slow the traveling blocks down in both directions.



Can be equipped with ram closed strobe, ram open strobe, accumulator pressure low strobe, and alarm horns for BOP closure and accumulator low pressure.



#### **BAIL ANGLE SENSOR**

Provides direct measurement of the bail angle. The sensor can be installed on all rigs with top drives, and can be used with other sensors to prevent collisions with the racking board, derrick structure and other moving equipment.

#### **CROWN SAVER**

Monitors a counterweight attached to the slow speed line of a rig traveling block. When the block contacts the counterweight an alarm signal is sent and rig brakes are engaged.





#### **BLOCK HEIGHT SENSOR**

Calculates block height and can also be used as a crown and floor saver. It can be installed while the rig is operating or racked, though drilling must be stopped while it's being mounted.

#### **OUTPUTS TO PLC**

Provides outputs or inputs to rig controls. It can control components such as an air kill for applying the rig brakes, or feed digital inputs to a PLC.





#### WIND SPEED SENSOR

Measures wind speed and temperature on location. Setting an alarm threshold helps protect against wind loading when the racking board is full of pipe.

#### **ELEVATOR ROTATION**

Determines the elevator position and rotational direction of the bail. It can be used within a tight derrick structure and with 3rd party pipe handling systems in order to prevent 'hooking' the elevators around the torque tube.





#### **BOP SENSORS**

Detects whether the rams on the BOP stack are in the open or closed position. The sensors come in sets of two (one for each ram side) and work in conjunction. The panel identifies each ram individually.

#### SPEED CONTROL

Monitors the speed and position of the blocks. If the blocks are in a speed control zone and breach the speed limit ascending or descending, the system will cut throttle and/or apply the auxiliary brake electronically or pneumatically.





#### **EMERGENCY SHUT DOWN**

Triggers an alarm and engages the rig brakes. This device can be configured to kill engines, sound sirens and light beacons.

#### LINE RIDER

Detects how much weight is suspended by the blocks. It does not need to be removed during a slip and cut operation, nor does it require recalibration afterwards.





# MEETING OR EXCEEDING PRODUCER BID REQUIREMENTS

Rigsmart safety equipment is approved and meets and/or exceeds the guidelines set forth by the following regulatory bodies:



























## **CONTACT THE EXPERTS AT RIGSMART TODAY**







