

## Drilling Simulator X3

Portable training for drilling operations and well control methods



The Endeavor Drilling Simulator X3 was designed to deliver Endeavor's industry leading simulation software in a portable form factor. With quick setup and take down, training on drilling operations and well control practices can be delivered anytime, anywhere in the world.

Endeavor Technologies software defines the simulation experience. Content is consistently updated to meet demands of the latest well control practices, allowing trainers and students to stay current with industry advancements. With an emphasis on industry leading graphics, students are presented with a realistic environment to complete simulations in a non-graded practice session, or in a graded scenario that meets the standards of IWCF and IADC.

To ensure that students grasp critical concepts, Endeavor takes a unique approach by randomizing malfunctions or by giving an instructor control of incidents from a remote station. This allows a true, unbiased training environment that is consistent to ad hoc incidents that can occur in the field.

In addition to individualized training, multiple students and instructors can join into a single simulation for team collaboration. Crews can be tested together to ensure compatibility prior to engaging in work environments.

As with all Endeavor Drilling Simulators, the software engine driving the simulations are consistent across all Endeavor products. This allows students to focus their learning on the most important area, the learning content so that competency can be achieved.

With the Drilling Simulator X3, portable drilling and well control simulation can solidify concepts and train workers at anytime regardless of geographic location.

### Benefits

- Transportable in one checked case
- Setup and take down in under ten minutes to maximize training time
- Interactive content to engage students
- Graded and non-graded scenarios
- Customizable modules tailored to an organization's policies and procedures
- High performance video graphics
- Choke panel with cable extension for physical separation
- Drillers joysticks to replicate real world controls
- Consistent simulation software with the entire Endeavor product line
- Multiple students can access a single simulation for team development
- Interoperability with Endeavor. One online platform for continuous professional development
- Customizable configurations to utilize large format, installed room displays for rig floor graphics

## Product Specifications

### Package Includes

- Driller Joysticks, Switches, and Buttons
- All-in-one Simulation PC
- Instructor's Tablet
- 15.6" Rig Floor Monitor
- Left Integrated UI Screen
- Right Integrated UI Screen
- 4-Port Network Switch
- Cable Bundle
- Optional: Remote Choke Panel
- Optional: Remote Choke Panel Touch Screen
- Pelican Case
- Custom Foam Inserts

### Left UI Touch Screen

- 292mm W x 8.5mm D x 201 Mm H
- Resolution: 2736 x 1824
- Touch: 10-Point Multi-Touch
- I5 Intel Core Processor
- 128gb SSD

### Left Joystick Controls

- Multi-Axis Iron Roughneck Joystick
- Joystick Buttons
  - Rotate Counter Clockwise
  - Rotate Clockwise
  - Break Out
  - Make Up
  - Crown/Floor Saver Bypass
- E-Stop Mud Pumps Latching Button
- E-Stop Roughneck Latching Button
- Elevator Safety Non-Latching Button
- Pipe Handler Lock Safety Non-Latching Button
- Driller's Chair Recline
- Monitor Arm Raise/Lower

### Right UI Touch Screen

- 292mm W x 8.5mm D x 201 Mm H
- Resolution: 2736 x 1824
- Touch: 10-Point Multi-Touch
- I5 Intel Core Processor
- 128gb SSD

### Right Joystick Controls

- Multi-Axis Drawworks Joystick
- Joystick Buttons
  - CCTV toggle View
  - Elevator Open
  - Elevator Close
  - Extend Frame
  - Retract Frame
  - Audible Horn
  - Float
- Parking Brake Latching Button
- Clamp Open/Close Switch
- Mudsaver Open/Close Switch
- Pipe Handler Rotate CCW/Neutral/CW Switch

### Instructor Tablet Specifications

- 292mm W x 8.5mm D x 201 Mm H
- Resolution: 2736 x 1824
- Touch: 10-Point Multi-Touch
- I5 Intel Core Processor
- 128gb SSD

### Simulation All-In-One PC Specifications

- 585mm W x 52mm D x 434mm H
- Resolution: 1920 x 1080
- Touch: 10-point Multi-Touch
- i7 Intel Core Processor
- 1TB HDD+128GB SSD
- USB-C connectivity for Rig Floor Monitor Graphics

### Optional: Choke Panel Specifications

- 342mm W x 112mm D x 110mm H
- Choke Open/Close Lever
- Choke Speed Potentiometer Dial

### Optional: Choke Panel Touch Screen

- 292mm W x 8.5mm D x 201 mm H
- Resolution: 2736 x 1824
- Touch: 10-point multi-touch
- i5 Intel Core processor
- 128GB SSD

### Rig Floor Monitor Specifications

- 379mm W x 8mm D x 236mm H
- Resolution: 1366 x 768
- Brightness: 200 cd/m

### Network Specifications

- IPv4 and IPv6 Support
- 1 x 10/100/1G Ethernet

### Typical Operating Voltage/Power

- 240W, 100-240V
- Auto Sensing Power Supply

### Warranty

- One Year standard warranty
- Maintenance contracts available annually or on three-year commitments

### Environmental Specification

- Operating temperature: 0 to 40° C
- Operating humidity: 15 to 80%
- Maximum altitude: 3,000m

### Shipping Dimensions

- 849mm x 448mm x 721mm
- 31.6kg

## Software Features

### Gold Package Includes

- Selection of Either Onshore or offshore Environments
- Equipment Includes: Top Drive, Slips, Stabbing Valves, Float, Pipe Racker, Iron Roughneck, HTV Arm, Catwalk, Elevators
- UI Control: Mud Pump, LVHP Pump, Drawworks, Pipe Racker, Top Drive, Cement Manifold
- Joystick Control: Drawworks, Top Drive Bails, Iron Roughneck, Floorsaver, Crownsaver, BOP Interlock, Elevator
- Instrumentation: Mud System, Pit Volume totalizer, Well Data, Rig Data, Electronic Drilling Recorder, Directional Drilling, Geocube, U-Tube UI, Instructor Chat
- Directional Drilling: Rosebud UI, Directional Survey
- Equipment Bypass: Load Mouseholes, Add Stand to Drillstring, Remove Stand from Drillstring, Remove Dropped Pipe, Add Stabbing Valve, Remove Stabbing Valve, Make Up Top Drive to Drillstring, Break Out Top Drive to Drillstring
- Chair Controls: Mudsaver, Parking Brake, Mud Pump E-Stop, Pipehandler Rotate, Top Drive Clamp, Elevator Safety, Pipe Handler Lock Safety, Iron Roughneck E-Stop
- Well Control: BOP, Standpipe Manifold, Choke Manifold, Remote Choke Panel, Real-Time Kill Sheet
- Video Tutorials: Well Control, Equipment, Procedures, Custom as Required
- Equipment Incidents: Choke Washout, Choke Plug, Pump #1, Pump #2, Drawworks, Top Drive Bails, Top Drive Rotary, Iron Roughneck, Power System
- Circulation Incidents: High Density, Low Density, Sloughing, Bit Balling, Cuttings
- Drillstring Incidents: Bit Plugged, Bit Washout, Stuck Pipe-Down, Pipe Windup, Key Seat, Stuck Pipe-Up, Mud Motor Stall, Pipe Twist off
- Formation Incidents: Gas Kick, Liquid Kick, Formation Fracture, Blowout
- Blowout Preventer Incidents: Upper Annular, Lower Annular, Upper Rams, Blind Rams, Middle Rams, Lower Rams.

### Platinum Package Includes

- All Gold Package Features, Equipment, Controls, and Malfunctions, Both Onshore and Offshore Environments

## About Endeavor

Endeavor helps organizations to revolutionize their workplace training to promote safe practices and improve competency in the critical oil and gas industry. Since inception, Endeavor has developed state-of-the-art software tools that not only improve operator competency, but also reduce environmental disruption, making operating more efficient and cost-effective. Endeavor's goal is to engage with companies to integrate policies, procedures and best practices in an interactive delivery model to promote ongoing learning and knowledge retention.

