

# Automated Well Testing Trailer

Fully automated mobile well testing platform

## Applications

- Appraisal and development of wells
- Production metering
- Flowback operations
- Reservoir performance optimization
- Extended well testing during both onshore and offshore testing operations

## Features

- Robust automated control at the wellsite and remotely
- Automated three-phase separator, including level control, pressure control, and Coriolis flowmeters
- Automated choke manifold with smart choke
- Compact and remotely monitored electrical emergency shutdown (EESD) system
- Metal-to-metal connections for process lines
- Remote control capability from a tablet, human machine interface (HMI), and cloud
- High-frequency data acquisition
- Control capability to applicable industry standards (API, ASME/ANSI, and NACE, ATEX Zone 1)
- Interconnected upstream and downstream modules
- Multiphase flowmeter (optional)

## How it improves well testing operations

- Offers mobility and modularity
- Improves operational efficiency during rig-up and rig-down
- Controls and monitors in real time
- Enables remote operations, monitoring, and control
- Minimizes HSE risk by removing personnel from the risk zone
- Lowers fugitive emissions
- Aggregates full wellsite data

## Fully automated platform even in high-H<sub>2</sub>S environments

The automated well testing trailer (AWTT-AA) is a fully automated mobile well testing platform for both onshore and offshore operations. It has many applications, even in high-H<sub>2</sub>S environments, with its metal-to-metal process line connections. It comprises two subsystems that can be used together or separately as stand-alone units. The automated well testing trailer also reduces fugitive emissions by using human-independent metering and choke adjustments.

## Automated well control module

The automated well control module (AWCM-AA) controls the well pressure and flow rate at surface by a set of electrically actuated adjustable choke and gate valves. The module hosts a compact EESD system that achieves fast and reliable well control, mitigating risks associated with well testing operations by closing the well within 1 to 2 s in case of emergency.

AWTT-AA Model Specifications	
Operating pressure	1,305 psi [9 MPa] to 10,000 psi [68.9 MPa]
Working temperature	−18 degF [−8 degC] to 250 degF [121 degC]
Max. flow rate: high gas	60 MMcf/d, 8,000 bbl/d
Max. flow rate: high liquid	40 MMcf/d, 14,000 bbl/d
Dimensions (L × W × H)	7.84 m × 2.35 m × 2.39 m
Max. gross weight	30 metric tons

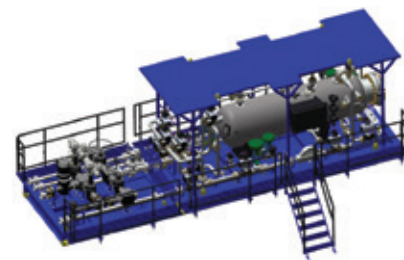
AWCM-AA and AWTS-AA Model Specifications		
	AWCM-AA	AWTS-AA
Max. allowable working pressure	10,000 psi [68.9 MPa]	1,440 psi [9.6 MPa]
Process temperature	−20 degF [−28 degC] to >250 degF [121 degC]	−4 degF [−20 degC] to >250 degF [121 degC]
Dimensions (L × W × H)	2.87 m × 2.35 m × 1.2 m	5.90 m × 2.35 m × 2.39 m
Weight	10 metric tons	20 metric tons
Power supply	230-V AC, 50/60 Hz	230-V AC, 50/60 Hz
Max. flow rate: high gas	—	60 MMcf/d, 8,000 bbl/d
Max. flow rate: high liquid	—	40 MMcf/d, 14,000 bbl/d
Applicable codes	API Spec 6A PSL-3 PR2, NACE MR0175, ATEX II2G IIB T4	ASME VIII Div. 1, ASME B31.3, NACE MR0175, ATEX II2G IIB T4

All specifications are subject to change without notice.

## Automated well test separator

The three-phase automated well test separator (AWTS-AA) measures and separates the different phases of the well effluent without human intervention. The vessel's pressure and level controls are also automated. The unit receives a command, such as to open or close a valve or divert fluid through the desired path, and then makes real-time adjustments. The separator is equipped with a radar-level transmitter and Coriolis flowmeters. The human-independent Coriolis technology gives a significant advantage for monitoring the type of fluids, delivering highly accurate flow rate data.

Both the automated well control module and the automated well test separator are equipped with remote-operated valves and pressure and temperature sensors. All elements of the control and acquisition systems are connected to the central data acquisition and control module (DACM). Monitoring and controlling can be done at the wellsite from an acquisition computer or an ATEX tablet via WiFi access.



AWTT-AA model overview.