



# TRUE Q<sup>®</sup> Dynamic Motion Seat

*ACME VMax - Motion Cueing for Many Simulator Types*



Railway Systems



Wheeled/Track Vehicles



Commercial Aviation



Hovercraft



Cranes/Heavylift



Construction Equipment



**Multiple Axis of Motion Create  
Pitch, Roll, and Yaw Cueing**



Military Aviation



Air Crew Stations



Watercraft



UAV Ground Stations

# VMAX SPECIFICATION INFORMATION

## Why True Q®? All Motion is Not Created Equal

ACME's patented True Q® seat technology is robust, reliable, and versatile. We've put our core technology to work in helicopter, fighter aircraft, and even locomotive trainers. Aviation training applications especially benefit from ACME motion seats and we have over sixteen years of experience in producing seats for a range of aircraft simulators. We've produced seats and components for M346, F-15, T-50, F-16, AH-64, HH-60, MH-60, SH-60, NH90, and CV-22 aircraft simulators.

The realistic motion from a Dynamic Motion Seat links the crew's visual perceptions with the tactile perceptions — a critical capability for situational awareness. With True Q® seats, the crew feels the aircraft g-loading, and vibrations, maximizing simulator realism and training effectiveness. The critical difference with ACME True Q® is that students do not just feel the motion, but train using the motion. Using the ACME Dynamic Motion Seat cueing, crews can train to recognize and rapidly respond to the signature motion sensations. ACME's proven designs, vast seat program expertise, and dedication to customer support means less risk to the customer.



6 DOF Cueing Using Four Independent Axis of Motion

### ELECTRICAL

Power - USA	20A - 120VAC 60Hz or 220VAC 60Hz
Power - European	20A - 230VAC, 50Hz Single Phase
Cable (Included)	Feedback Cables(4), Motor Power Cables (4)
Cable Limitations	Not to Exceed Length of: 80 ft / 24.38 m

### MECHANICAL

Dimensions - Seat (width x depth x height)	18 in x 30.1 in x 37 in 45.72 cm x 76.45 cm x 93.98 cm
Dimensions - Cabinet (width x depth x height)	22 in x 34 in x 48 in 55.88 cm x 86.36 cm x 121.92 cm
Weight - Seat	185 lbs / 83.91 kg
Weight - Cabinet	250 lbs / 114 kg
Max Crew Weight	250 lbs / 114 kg

### THERMAL/AMBIENT NOISE

Heat Load - Seat	171 BTUs/Hr
Heat Load - Cabinet	1640 BTUs/Hr
Seat Noise	< 65 db @ 3.28 ft / 1 m

### MOUNTING REQUIREMENTS

Base Mount Risers (width x height x length)	1.5 in x 2.5 in x 16 in 3.81 cm x 6.35 cm x 40.64 cm
Mount Screws	4 - 5/16 in - Socket Head Cap Screws

### ELECTRONICS AND SOFTWARE

All 19" Equipment is Rack Mountable
Host Emulator Provided for Pre-Integration
Seat Emulator Provided for Pre-Integration
Ethernet Interface
Standardized Interface Control Document
Daily Operation Readiness Test Software
Auto Test Functionality

### VMAX TRUE Q®

Patent-Pending Seat Technology
4 Independent Axis of Control: Vertical, Longitudinal, Lateral, and Roll
20 Settable Cues Independent of the Flight Model - 10 Buffets, 10 Impacts
Real-Time Performance Monitoring and Graphing
"Plug and Play" - DMS Computer Contains All the Algorithms to Drive the Seat
Data Package for Maintenance & Support throughout DMS Lifecycle
Other Types of Seats with Full High-Fidelity Features Available: <ul style="list-style-type: none"> <li>- 6 Channel Motion Axis</li> <li>- Belt/Harness-Tightening Systems</li> <li>- G-Suit Systems</li> <li>- Mask Air Systems</li> </ul>



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