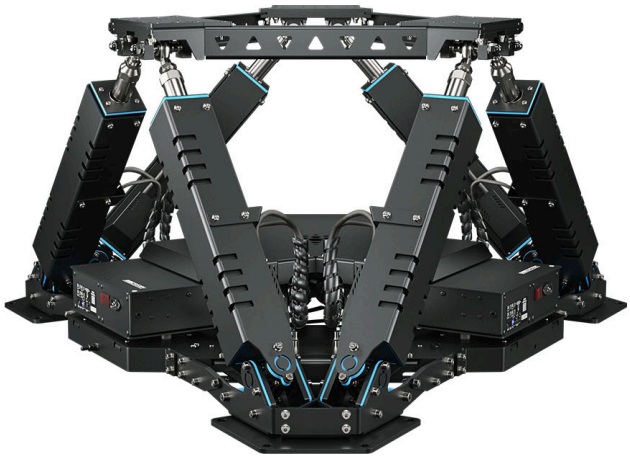
PS-6TL-250

A motion range biased toward straight-line travel, tuned for realistic acceleration cues rather than tilt alone, for single-seat training and research cockpits.

MADE IN POLAND EUROPEAN UNION MEMBER

GLOBAL SHIPPING



0.41 G	600 mm/s	13.5°	±12.1°	131+ mm
MAX ACCELERATION	MAX VELOCITY	MAX TILT	YAW RANGE	TOTAL HEAVE

Total heave is full travel; other motion figures are per-axis maxima from neutral. Axes are not driven to their extremes simultaneously.

Engineered for professional simulation

Compact Flight or Driving Cockpit

A clinic or training room installs the cockpit on an existing wall outlet, with no electrical project or contractor.

Tuned for Acceleration, Not Just Tilt

Pilots and drivers feel the linear accelerations they know from the real vehicle, so the trained skill transfers and survives assessment.

Shares the Proven QS-L1 Actuator

A multi-rig center stocks one shelf of spares and trains technicians once, keeping every platform serviceable in-house.

Six-leg Stewart hexapod

Six electric ball-screw linear actuators stand in a Stewart hexapod between the base feet and the upper frame, each carried on upper and lower cardan joints. Inside each actuator a servo motor turns a recirculating ball screw, so rotation becomes smooth piston travel; coordinating the extension and retraction of all six legs forms every axis, from heave and surge to pitch, roll and yaw.

Plug-and-play for supported titles, or full SDK

- **ForceSeatPM** - platform manager, auto-detects supported titles
- **ForceSeatMI/DI SDK** - integrate motion into custom applications
- **ACE Engine** - professional motion-cueing
- **VR HeadWay** - VR motion compensation

AXIS	SINGLE EXCURSION	MAX EXCURSION	MAX VELOCITY	MAX ACCELERATION
Heave	-64.2 / 67.4 mm	-64.2 / 67.4 mm	440 mm/s	0.31 G
Surge	-85.8 / 88.4 mm	-90 / 90 mm	600 mm/s	0.41 G
Sway	-77 / 77 mm	-97 / 97 mm	500 mm/s	0.36 G
Pitch	-10.4 / 10.3°	-13.5 / 13.4°	60 °/s	500 °/s²
Roll	-11.4 / 11.4°	-11.9 / 11.9°	80 °/s	540 °/s²
Yaw	-11.9 / 11.9°	-12.1 / 12.1°	80 °/s	510 °/s²

PAYLOAD SPECIFICATIONS	
Gross Moving Load	250 kg
CoG height above MPC	<500 mm
Moments of inertia (Ixx, Iyy, Izz)	100 kg·m²

MAIN DIMENSIONS	
Total Width	1258 mm
Total Length	1437 mm
Min Height	618 mm
Max Height	750 mm

SPECIFICATIONS	
Architecture	6 DOF
Drive technology	Linear Actuator
Product weight	213 kg

POWER & INSTALLATION	
Supply	Single-phase from an ordinary earthed socket - US (120V) or EU (230V) mains.
Network type	Standard one-phase, ground and neutral, RCD-protected.
Circuit protection	16A type B circuit breaker (EU 230V).
Grounding	Standard protective earth, as on any earthed socket.
Installation	Runs from a compact driver box - no power cabinet, no three-phase feed.
With PS-SB230 (optional)	The optional PS-SB230 cabinet runs the platform on 230V single-phase mains; for a 120V supply, contact Technical Support.

POWER DRAW	
Average power	0.6 kVA (120 V) / 0.7 kVA (230 V)
Peak power	1.2 kVA (120 V) / 1.4 kVA (230 V)
Average current	5 A (120 V) / 3 A (230 V)
Peak current	10 A (120 V) / 6 A (230 V)
Avg power - stress test	0.3 kW (120 V) / 0.3 kW (230 V)
Avg power - typical game	0.1 kW (120 V) / 0.1 kW (230 V)

What's in the Box.

HARDWARE

- ✓ **PS-6TL-250**
  A compact ball-screw hexapod on six QS-L1 actuators with a larger translation envelope than the 150 - all six axes.
- ✓ **Driver Box + Power Supply**
  A compact driver box and single-phase supply (120 V US / 230 V EU) run the six QS-L1 actuators from a wall outlet - no cabinet or three-phase.
- ✓ **Motion-Lock**
  A hardware stop switch - press it and motion cuts at once. With no brakes to hold the load, the platform settles to its lowest resting position.
- ✓ **Cable Set**
  The USB, power and Motion-Lock cables - the platform wires together as delivered.
- ✓ **Packing & Handling**
  Ships factory-assembled and calibrated in a forklift-ready crate - the integrator unpacks and installs, with no on-site build.

MotionSystems

SOFTWARE & LICENSES

- **ForceSeatPM**
  Auto-detects 154+ supported games with pre-tuned profiles. Included free, with free software updates.
- **Sim Profiles**
  Pre-tuned motion profiles for the popular sims and games, so the first session already feels right.
- **ACE**
  The motion cueing engine that turns simulator telemetry into felt acceleration - the sharp onset of a bend or brake on the platform, with sustained forces held by coordinated tilt rather than a crude static roll.
- **VR HeadWay**
  VR motion compensation that cancels the platform's own movement from the headset, so the view stays stable and motion sickness stays low. Included free.
- **Docs & 3D Model**
  Full documentation and a simplified 3D STP model, plus the EC Declaration of Incorporation (2006/42/EC) for partly completed machinery - the platform is integrated into a final machine on site.
- **24-Mo Warranty**
  A 24-month warranty on the hardware and motion electronics, with free software updates throughout.

OPTIONAL HARDWARE

PS-SB230 Cabinet (E-Stop upgrade)

Optional, with PS-SBR remote and PS-SBEC button - upgrades Motion-Lock control to a full E-Stop chain. The upgrade is to the stop circuit, not the mechanics: with no holding brakes, an E-Stop cuts the drive and the platform settles to its lowest position rather than holding in place - the same as the standard Motion-Lock. The cabinet runs on 230V single-phase mains; for a 120V supply, contact Technical Support.

OPTIONAL SOFTWARE AND SERVICES

ForceSeatMI - Motion SDK

Motion SDK to drive the platform from custom software on top of ForceSeatPM. Licensed per motion platform, with the key stored on the PC.

ForceSeatDI - Direct Interface SDK

Low-level SDK that drives the hardware directly, without ForceSeatPM - each platform driven independently, on Windows, Linux or Raspberry Pi. Licensed per platform, with the key stored on the motion controller.

Remote Training (online)

Six-hour online session - overview, safety, operation, maintenance, ForceSeatPM setup, diagnostics and tuning. Per session.

VR HeadWay CrossPC

A paid VR add-on, licensed separately from the base VR HeadWay. One CrossPC license covers exactly two VR users on a shared platform - each seat has its own rendering PC and geometry-correct compensation (for example pilot and copilot). More seats need an additional license.

Motion Theater

Plays pre-authored motion with video or group sessions - for theaters, attractions and briefings, not live sim. Per platform.

More Options

Profile packs, installation, reports, extended warranty and bespoke development - talk to the Motion Systems team to tailor it.

MOTION SYSTEMS

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Made in Poland (EU)

PRODUCT

RESOURCES

All platforms
Knowledge Hub
Buyer's Guide