PS-6TL-350

For single-seat training cockpits and tight-access sites - ships assembled, or in modules that pass through standard doorways.

MADE IN POLAND EUROPEAN UNION MEMBER

GLOBAL SHIPPING



0.66 G	700 mm/s	26°	±31.8°	354+ 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

Wide Yaw for Turn and Sideslip

Helicopter sideslip, a lane-change or a hard turn reaches the trainee as real rotation.

Optional Modular Delivery for Tight Access

A tight corridor or compact room takes delivery, then a hoist lifts it into place.

Brakes Hold on Power Loss

The cockpit holds position through every stop, and acceptance testing clears on standard hardware.

Six-leg Stewart hexapod

Six electric ball-screw actuators stand in a Stewart hexapod between the base feet and the upper frame. In each leg a servo motor drives a recirculating ball screw through a timing belt, turning that rotation into smooth linear travel.

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	-165.8 / 189.1 mm	-165.8 / 189.1 mm	370 mm/s	0.51 G
Surge	-306 / 273.1 mm	-339 / 337 mm	680 mm/s	0.66 G
Sway	-265.3 / 265.3 mm	-298 / 298 mm	700 mm/s	0.5 G
Pitch	-19.8 / 18.1°	-26 / 23.4°	50 °/s	650 °/s²
Roll	-20.6 / 20.6°	-21.4 / 21.4°	45 °/s	600 °/s²
Yaw	-28.2 / 28.2°	-31.8 / 31.8°	60 °/s	700 °/s²

PAYLOAD SPECIFICATIONS	
Gross Moving Load	350 kg
Payload (top frame fitted)	300 kg
CoG height above MPC	<500 mm
Moments of inertia (Ixx, Iyy, Izz)	125 kg·m²

MAIN DIMENSIONS	
Total Width	1726 mm
Total Length	1660 mm
Min Height	790 mm
Max Height	1145 mm

SPECIFICATIONS	
Architecture	6 DOF
Drive technology	Linear Actuator
Product weight	360 kg

POWER & INSTALLATION	
Supply	230V single-phase (Wye), ground and neutral; industrial CEE connector supplied. For a 120V supply, contact Technical Support.
Circuit protection	16A type C circuit breaker.
EMC configuration	Runs on a standard RCD/GFCI-protected circuit.
Grounding	High leakage current - permanent solid protective earth, fitted by a qualified electrician.
Installation	Single-phase install by a qualified electrician; full detail in the manual.
Connection	USB or Ethernet

POWER DRAW	
Average power	3.2 kVA
Peak power	4.4 kVA
Average current	15 A
Peak current	30 A
Avg power - stress test	1.7 kW
Avg power - typical game	0.9 kW

What's in the Box.

HARDWARE

- **PS-6TL-350**
  A six-leg ball-screw hexapod (gross moving load up to 350 kg) - all six axes with precise travel for research and training. The factory top frame takes 50 kg of that figure, leaving the 300 kg payload; removing it and bolting the cockpit floor directly to the mounting points frees the full 350 kg - validated during scoping.
- **PS-SB230 Cabinet**
  Power and control - AC/DC protection and controller, fed from a dedicated 230V single-phase industrial CEE socket. For a 120V supply, contact Technical Support. The controller connects to the host PC over USB or Ethernet.
- **PS-SBR Remote + E-Stop**
  The PS-SBR remote (E-STOP, KNEEL, POWER LOCK) and PS-SBEC stop button - the hardware safety chain to park or stop motion. The keyed POWER LOCK keeps arming with the operator; the 3 m PS-SBEC lead adds a stop within reach.
- **Electromagnetic Brakes**
  One safety brake per actuator - engages on power loss and holds the load. A fail-safe, standard here.
- **Cable Set**
  Mains, USB to the host PC, and the PS-SBR remote and EMCY safety leads - wired together as delivered.
- **Packing & Handling**
  Ships factory-assembled and calibrated in a forklift-ready crate as standard; where access is tight, the platform can be prepared as modules that pass through a standard doorway and are connected on site.

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, including the mounting-point layout, 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

Extended Top Frame
A larger top frame with extra holes and brackets to bolt a seat or full cockpit straight on. Sized for this model.

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

Miedziana 7, 55-003 Nadolice Wielkie, Poland
motionsystems.eu
info@motionsystems.eu
Made in Poland (EU)

PRODUCT

RESOURCES

All platforms
Knowledge Hub
Buyer's Guide