MotionSystems

TM SERIES

PS-3TM-550

Built for busy training centers - a two-seat cockpit that rolls in, bolts down and runs session after session. Quiet enough to run in occupied rooms.

MADE IN POLAND EUROPEAN UNION MEMBER

GLOBAL SHIPPING



0.3 G	340 mm/s	22.6°	299+ mm
MAX ACCELERATION	MAX VELOCITY	MAX TILT	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

Quiet Enough for a Shared Room

A center sites it beside instructor desks and open classrooms, so one room holds the motion run and the briefing.

Two-Seat Cockpit on a 3DOF Base

One platform runs paired instructor-and-trainee scenarios, not single-seat cycles, so two learners share one run and learners-per-hour climbs.

Rolls In, Bolts Down, Runs

One person rolls it in, bolts down and powers up from a single-phase industrial socket, reaching first run without three-phase rewiring.

Three-leg low-profile platform

Three electric rotary actuators sit in a low-profile tripod, one driving each corner of the upper frame. Working together, the three actuators tilt the cockpit in pitch, roll and heave under the full 550 kg payload, while the tripod layout keeps the deck low for easy group boarding.

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	-142.8 / 156.7 mm	-142.8 / 156.7 mm	340 mm/s	0.3 G
Pitch	-16.1 / 16.2°	-22.6 / 21.2°	45 °/s	420 °/s²
Roll	-18.7 / 18.7°	-18.8 / 18.8°	45 °/s	420 °/s²

PAYLOAD SPECIFICATIONS	
Payload	550 kg
CoG height above MPC	<500 mm
Moments of inertia (Ixx, Iyy, Izz)	225 kg·m²

MAIN DIMENSIONS	
Total Width	1444 mm
Total Length	1554 mm
Min Height	610 mm
Max Height	910 mm

SPECIFICATIONS	
Architecture	3 DOF
Drive technology	Helical-Bevel Geared
Product weight	390 kg

POWER & INSTALLATION	
Supply	230V single-phase (Wye), ground and neutral; industrial CEE connector supplied. For a 120V supply, contact Technical Support.
Circuit protection	25A 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	1.9 kVA
Peak power	4.7 kVA
Average current	9 A
Peak current	23 A
Avg power - stress test	1.2 kW
Avg power - typical game	0.6 kW

What's in the Box.

HARDWARE

- **PS-3TM-550**
  A three-actuator tripod on helical-bevel geared servos - a high-payload tripod in the line, for two-seat and heavier cockpits.
- **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 - the integrator unpacks and installs, with no on-site build.

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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

Wheels & Feet Set
Transport wheels and adjustable feet to move and level the platform where it is not bolted down; suitability for a given cockpit follows the product documentation.

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

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PRODUCT

RESOURCES

All platforms
Knowledge Hub
Buyer's Guide