PS-3TM-1000

For vehicle simulators and full-cabin group trainers - instructor plus three trainees in one booking. Deepest, fastest vertical travel in the 3TM line.

MADE IN POLAND EUROPEAN UNION MEMBER

GLOBAL SHIPPING

0.46 G	510 mm/s	23°	327+ 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

Full Cabin, Up to Four Occupants

A training center runs a whole cohort in one booking instead of cycling seats one at a time.

Strong Vertical Cue Across Every Seat

Runway-threshold and terrain cues reach every seat, so trainees behind the instructor feel the event, not the screen.

1000 kg Without a Hydraulic Power Unit

A multi-shift center runs without fluid service, and electromagnetic brakes hold the cabin if power drops mid-run.

Three-leg low-profile platform

Three electric rotary actuators sit in a low-profile tripod under the cabin. In each one an electric servo motor turns a helical-bevel gearbox, and a pulling rod on ball joints carries that rotation to the upper frame.

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	-157.4 / 170.5 mm	-157.4 / 170.5 mm	510 mm/s	0.46 G
Pitch	-16.4 / 16.4°	-23 / 21.5°	55 °/s	488 °/s²
Roll	-19 / 19°	-19 / 19°	47 °/s	360 °/s²

PAYLOAD SPECIFICATIONS	
Payload	1000 kg
CoG height above MPC	<500 mm
Moments of inertia (Ixx, Iyy, Izz)	420 kg·m²

MAIN DIMENSIONS	
Total Width	1497 mm
Total Length	1705 mm
Min Height	688 mm
Max Height	1016 mm

SPECIFICATIONS	
Architecture	3 DOF
Drive technology	Helical-Bevel Geared
Product weight	595 kg

POWER & INSTALLATION	
Supply	400V three-phase ±10% (230V to neutral), 50/60 Hz; the feed is not supplied.
Network type	Wye only, ground and neutral (TN-S).
US supply	US 208V or 480V needs a transformer to reach 400V ±10%.
Circuit protection	32A type C circuit breaker.
EMC configuration	EMC input filters fitted as standard for demanding operation in environments with high electromagnetic interference; the drive needs a permanent protective earth, not a standard RCD/GFCI. A filter-free build for RCD/GFCI operation is available on request.
Grounding	High leakage current - permanent solid protective earth, fitted by a qualified electrician.
Installation	Three-phase install by a qualified electrician; full detail in the manual.
Connection	USB or Ethernet

POWER DRAW	
Average power	4.3 kVA
Peak power	8.7 kVA
Average current	7 A/ph
Peak current	17 A/ph
Avg power - stress test	4.1 kW
Avg power - typical game	1.9 kW

MotionSystems

What's in the Box.

HARDWARE

- **PS-3TM-1000**
  The heavy three-actuator tripod on helical-bevel geared servos - the highest payload of the 3DOF line, for large cabins.
- **PS-SB400 Cabinet**
  Power and control - AC/DC protection and controller, on a 400V three-phase supply. 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 5 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.

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.

MotionSystems

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