PITOT / STATIC TESTER

ADSE 7XX range

For all aircrafts

www.omicron.ateq.com

Edition 01 (0803121514)

PITOT / STATIC TESTER
For Laboratory and workshop

ADSE 740

RVSM Pitot / Static Controller
User interface : Windows XP et Labview®

RVSM Pitot / Static Indicator
Replace mercury column

ADSE 730

Vacuum chamber
Option vibrating table

CV 250 & 400

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PITOT / STATIC TESTERS
For hangar and tarmac

ADSE 735

Pitot or Static tester
Ruggedised PDA type remote control unit
LCD colour touch screen
RVSM option

Altitude controller
Leak and pressure tester
System operation with a single button

ADSE 712

ADSE 743

RVSM Pitot / Static Tester
8,4 ‘’’ colour touch screen remote control unit
Automatic programs

RVSM Pitot / Static Tester
8,4 ‘’’ colour touch screen remote control unit
Up to 3 Ps and Pt channels
Automatic programs
Battery pack option

ADSE 745

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PITOT / STATIC INDICATOR
For Laboratory and Workshop

⇒ **ALTIMETERS TESTING**

⇒ **AIR SPEED INDICATORS TESTING**

⇒ **VERTICAL SPEED INDICATORS TESTING**

⇒ **AIR DATA COMPUTERS TESTING**

⇒ **PRESSURE SENSORS TESTING**

RVSM COMPILANT

The ADSE 730 is a complete high performance dual pressure **Ps and Pt** stand-alone test bench specially designed to be used in the workshop or in the laboratory to test and calibrate all air data equipment (altimeters, vertical speed indicators, anemometer, MACH-meter and air data computers ...) and sensors.

The **high precision** embedded **sensors** enable the ***ADSE 730*** to **be used as a pressure standard.**

The ADSE 730 is fitted with a 9,4'' LCD Touch screen for easy human machine interface.

ADSE 730

Main Features

- Liquid crystal display with touch sensitive screen for operator instructions/help
- Complete self check of set before use
- High accuracy, high resolution
- **RVSM compliant**
- Programmable leak test
- **Programmable flight envelope** to protect equipment under test
- All four primary flight parameters displayed simultaneously
- Selectable pressure units : hPa; mb; in Hg; mmHg; ft; m; kts; km/h, ft/min; m/sec and Mach number

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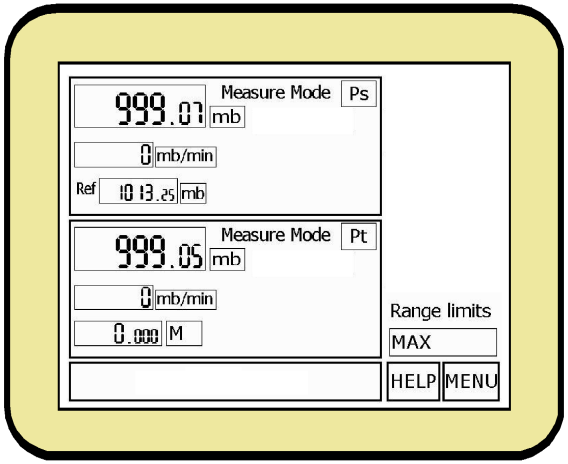
LECTEUR PITOT / STATIC

ADSE 730

RVSM COMPLIANT

General details

Temperature range	operating : 10 ˚C to 40 ˚C
Power supply	110/240V,50 Hz AC, 50VA
Case:	Robust fibber EMC requirements - MIL STD 462D
Physical:	320mm x 240mm x 100mm 5kg (11lbs)
Calibration:	Recommended period 12 months
Ease of Use	9,4' LCD touch screen
Ease of maintenance:	Modular design permitting ease of accessibility to mechanical assemblies and electronic components



Typical screen display

Measurement specification

Function	Range	Accuracy (1)
Altitude:	-2,300 to 80,000ft	±3ft at 0ft ±8ft at 30,000ft ±32ft at 60,000ft
	-700 to 24,000m	±1m at 0m ±3m at 10,000m ±13m at 20,000m
Indicated airspeed:	10 to 800kts	±2kt at 50kts ±0.14kt at 500kts ±0.07kt at 800kts
	20 to 1480km/h	±3km/h at 100km/h ±0.26km/h at 900km/h ±0.13km/h at 1480km/h
Mach No:	0.1 to 6.0 Mach	±0.002M at 0,8M/25,000ft ±0.004M at 1,7M/30,000ft
Static sensor	35 to 1355 mbar	0,01% FS
Pitot sensor	35 to 2700 mbar	0,01% FS

(1) linearity + repeatability + hysteresis at ambiant +10° to +40°C
x 0,5 for ±2°C lab use

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PITOT / STATIC TESTER
For Laboratory and Workshop

⇒ **ALTIMETERS TESTING**

⇒ **AIR SPEED INDICATORS TESTING**

⇒ **VERTICAL SPEED INDICATORS TESTING**

⇒ **AIR DATA COMPUTERS TESTING**

⇒ **PRESSURE SENSORS TESTING**

RVSM COMPILANT

The ADSE 740 Pitot is a complete high performance dual pressure Ps and Pt stand-alone test bench specially designed to be used in the workshop or in the laboratory to test and calibrate all air data equipment such as altimeters, vertical speed indicators, air speed indicators, MACH -meter, air data computers ...) and sensors.

The high precision embedded sensors enable the ***ADSE 740*** to be used as a pressure standard.

The man machine interface is programmed under Windows® and Labview®, with a data base managed in a spreadsheet for easy evaluation, management, statistics and presentation.

ADSE 740

Main Features

- Complete self check of set before use
- High accuracy, high resolution
- RVSM compliant
- Programmable leak test
- Programmable flight envelope to protect equipment under test
- All four primary flight parameters displayed simultaneously
- Programmable (password write protected) test schedules – 24 programs available
- Selectable pressure units hPa; mb; in Hg; mmHg; ft; m; kts; km/h, ft/min; m/min and Mach number

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PITOT / STATIC TESTER

ADSE 740

RVSM COMPLIANT

General details

Temperature range	Operating : 15 ˚C to 40 ˚C
Power supply	110/240V,50 Hz AC, 150VA
Case:	19" x 4 U x 524 mm, 14kg (31lbs)
Screen:	17" LCD colour 2,5kg (5,5 lbs)
Calibration:	Recommended period 12 months
Ease of Use	Windows human/machine interface Program script Easy programming of test reports
Ease of maintenance:	Modular design permitting ease of accessibility to mechanical assemblies and electronic components

Optional

Internal pumps

IEEE488 digital interface

Ps & Pt outlet at the back of the bench

Vertical housing

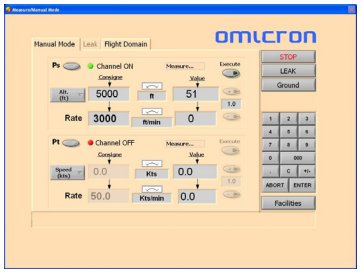
Specific Pt sensor for improved accuracy at low speed

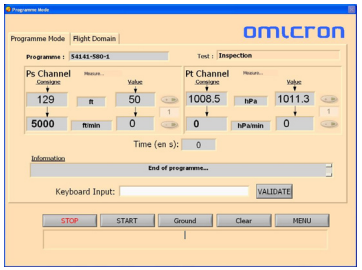
Pneumatic connectors JIC 37 (AN4) or Staubli

Measurement Specification

Function	Range	Accuracy (1)
Altitude:	-2,300 to 80,000ft	±3ft at 0ft ±8ft at 30,000ft ±32ft at 60,000ft
	-700 to 18,000m	±1m at 0m ±2.5 m at 9,000m ±10 m at 18,000m
Altitude rate:	Up to ±15,000ft/min	±1%
	max.±5,000m/min	±1%
Indicated airspeed:	10 to 800kts	±2kt at 50kts ±0.14kt at 500kts ±0.07kt at 800kts
	20 to 1480km/h	±3km/h at 100km/h ±0.26km/h at 900km/h ±0.13km/h at 1480km/h
Mach No:	0.1 to 4.0 Mach	±0.002M at 0,8M/25,000ft ±0.004M at 1,7M/30,000ft
Static sensor	30 to 1200 mbar	0,01% FS (1)
Pitot sensor	30 to 3000 mbar	0,01% FS (1)

(1) linearity + repeatability + hysteresis at ambiant +10° to +40°C
x 1,5 for -10° to +50°C
x 0,5 for ±2°C lab use





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VACUUM CHAMBER
For Laboratory and Workshop

- ⇒ **ALTIMETERS TESTING**
- ⇒ **AIR SPEED INDICATORS TESTING**
- ⇒ **VERTICAL SPEED INDICATORS TESTING**
- ⇒ **MANO CONTACT TESTING**
- ⇒ **PRESSURE SENSORS TESTING**
- ⇒ **ALL NON PRESSURISED EQUIPMENT TESTING**

The CV250 and CV400 are vacuum chambers for altitude flight simulation for avionics instruments such as altimeters, rate of climb indicators and all non pressurised equipment.

They are fitted with pneumatic and electric connectors and a quick locking door.

The CV250 and CV400 are fitted in option with a vibrating table.

CV250 & CV400

Main Features

- Only one generation channel for pressure or vacuum
- 370 mm (14.5 inch) internal diameter (CV 400)
- 230 mm (9 inch) internal diameter (CV 250)
- Max. dimensions of the instruments fitting in the chamber:
  - CV 400: 265 * 150 * 280 mm
  - CV 250: 145 * 110 * 280 mm
- Transparent door and case
- Overpressure secured at 1200 hPa
- Quick locking door
- Possible incline up to 20°
- Option: Vibrating table

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ALTITUDE CONTROLLER
LEAK TESTER For hangar and tarmac

⇒ **MANO-CONTACT TESTS**

⇒ **ALTITUDE SIMULATION**

⇒ **LEAK TESTER**

The ADSE 712 is a single channel generator that simulates an altitude to test different pneumatic equipment for aerospace applications or equipment reacting to barometric constraints.

It can test leaks in pneumatic circuits, functions linked to the depressurization of the aircraft cabin, etc...

The ADSE 712 is presented as a small light-weight case containing all vacuum and pressure generation, measurement and regulation functions.

All operator interface, management and report functions are presented on the front panel of the equipment.

The ADSE 712 is driven with a single button, to launch a test program predefined in our workshop. The parameters of this program (test time, vacuum or altitude value and unit, leak test time, reported

ADSE 712

Main Features

- Only one generation channel for pressure or vacuum
- Integrated pumps
- Regulation managed by micro controller
- System operation with a single button
- Leak rate measurement
- Secured for use by occasional users

Options

- Choice of altitudes to simulate of leak measurement time
- Serial link for driving the system with a computer
- Pressure generation to test Pitot probes

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PITOT or STATIC TESTER
For hangar and tarmac

⇒ **ALTIMETERS TESTING**

⇒ **AIR SPEED INDICATORS TESTING**

⇒ **VERTICAL SPEED INDICATORS TESTING**

⇒ **AIR DATA COMPUTERS TESTING**

⇒ **PRESSURE SENSORS TESTING**

⇒ **LEAK TESTER**

RVSM COMPILANT

The ADSE 735 allows generating and controlling automatically pressures and vacuum simulating altitudes and speeds with regulated altitude rates at 1%, in order to check the accuracy, the hysteresis and the leak rates of **all types of aircraft flight indicators (altimeters, airspeed indicator, vertical speed indicator and air data computers).**

***Its* robust polyester case** is easy to carry and contains all necessary features (electrical cables and pressure hoses)

The parameter control is performed via a ruggedised PDA type **remote control unit** with an LCD transflective touch-screen display (allowing vision in the sun).

ADSE 735

Main Features

- Ps / Pt (Speed simulation at ground level)
- RVSM with 50 000 ft extended flight domain option
- Computer controlled regulation
- Built-in pressure/vacuum pumps
- QVGA Colour Liquid crystal display with touch sensitive screen for operator I instructions/help
- Complete self check of set before use
- High accuracy, high resolution
- Programmable leak test
- Programmable flight envelope to protect equipment under test
- All primary flight parameters displayed simultaneously
- Programmable (password write protected) test schedules – 24 programmes available
- Selectable pressure units : hPa; mb; in Hg; mmHg; ft; m; kts; km/h, ft/min; hm/min and Mach number

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PITOT or STATIC TESTER

ADSE 735

RVSM COMPLIANT

General details

Temperature Range	Operating	-10° à +50°C
	Storage	-20° à +60°C
Power supply	110/240V,50 Hz AC, 70VA	
Case:	Water resistant	
	CE and MIL STD462D marking	
Physical	440mm x 325mm x 200mm	
Weight	12 kg	
Calibration:	Recommended every 12 months	

Options

Power supply : 12 to 32V DC
AC Power Supply: 110/240 V, 50 to 400 Hz
Extended flight domain to 50 000 ft

Measurement specifications

Function	Range	Accuracy (1)
Altitude:	-2,300 to 15,000ft	±5 ft at 0 ft
		±7 ft at 5,000 ft
		±8 ft at 15,000 ft
	-700 to 5,000m	±1.5 m at 0 m
		±2.1 m at 1,500 m
		±2.5 m at 4,500 m
Rate of climbe:	Up to ±6,000ft/min	±1%
	Up to ±2,000m/min	±1%
Indicated airspeed	20 to 350kts	±3.5kt at 20kts
		±0.2kt at 150kts
		±0.1kt at 350kts
	50 to 650km/h	±1.2km/h at100km/h
		±0.4km/h at 300km/h
		±0.2km/h at 650km/h
Sensor	30 to 1100 mbar	0,01% FS (1)

(1) linearity + repeatability + hysteresis at ambiant +10° to +40°C
x 1,5 for -10° to +50°C

FS: Full Scale

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PITOT / STATIC TESTER
For hangar and tarmac

ALTIMETERS TESTING

⇒ **AIR SPEED INDICATORS TESTING**

⇒ **VERTICAL SPEED INDICATORS TESTING**

⇒ **AIR DATA COMPUTERS TESTING**

⇒ **PRESSURE SENSORS TESTING**

⇒ **LEAK TESTER**

RVSM COMPILANT

L'ADSE 743 caters fully for **all aircraft types** and the different electrical power supplies.

It can be used for testing high performance **civil and military** aircraft, **fix and rotary wing**

This Pitot Static Tester is designed primarily for flightline use to cover the testing of all barometric and manometric pressure instrument systems.

The **large touch screen display**, with on-screen help ,enables all checks to be carried out easily on the flight deck or in the cockpit, by a single operator.

The Test Set is robust and housed in a **mobile weather-proof case**. An attached bag contains the pressure hoses and electrical cables.

Accessories to suit specific applications may be supplied.

ADSE 743

Main Features

- Built-in pressure and vacuum pumps
- Liquid crystal colour display with touch sensitive screen for operator instructions/help
- Remote control unit based on Windows XP tablet PC
- Complete self check of set before use
- High accuracy, high resolution
- **RVSM compliant**
- Programmable leak test
- **Programmable flight envelope** to protect equipment under test
- All four primary flight parameters displayed simultaneously
- **Programmable** (password write protected) **test schedules**
- Selectable pressure units : hPa; mb; in Hg; mmHg; ft; m; kts; km/h, ft/min; hm/min, Mach number,

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TESTEUR PITOT / STATIC

ADSE 743

RVSM COMPLIANT

General details

Temperature range	Operating -10˚ to 50˚C
Power supply	110/240V,50 to 400 Hz AC, 150VA
Case:	Completely weatherproof,meets EMC requirements - MIL STD 462D
Physical:	515mm x 380mm x 270mm 17 kg (38 lbs)
Calibration:	Recommended period 12 months
Ease of Use	Remote touch screen Integrated bag for cables and ho-
Ease of maintenance:	Maintenance limited to calibration, regular external cleaning and exchange of filters (with the calibration)

Optional

Power supply : 17 to 32V DC

Remote Control Software for PC (Windows 2000 & XP)

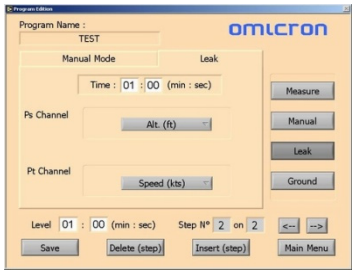
Measurement specification

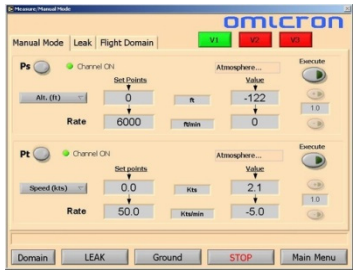
Function	Range	Accuracy (1)
Altitude:	-2,300 to 60,000ft	±3ft at 0ft ±8ft at 30,000ft ±32ft at 60,000ft
	-700 to 18,000m	±1m at 0m ±2.5m at 9,000m ±10m at 18,000m
Altitude rate:	Up to ±6,000ft/min	±1%
	max.±2,000m/min	±1%
Indicated airspeed:	10 to 800kts	±2kt at 50kts ±0.14kt at 500kts ±0.07kt at 800kts
	20 to 1480km/h	±3km/h at 100km/h ±0.26km/h at 900km/h ±0.13km/h at 1480km/
Mach No:	0.1 to 4.0 Mach	±0.002M at ±0.004M at
Static sensor	30 to 1200 mbar	0,01% FS (1)
Pitot sensor	30 to 3000 mbar	0,01% FS (1)

(1) linearity + repeatability + hysteresis at ambiant +10° to +40°C

x 1,5 for -10° to +50°

x 0,5 for ±2°C lab use





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PITOT / STATIC TESTER
For hangar and tarmac

- ⇒ **ALTIMETERS TESTING**
- ⇒ **AIR SPEED INDICATORS TESTING**
- ⇒ **VERTICAL SPEED INDICATORS TESTING**
- ⇒ **AIR DATA COMPUTERS TESTING**
- ⇒ **PRESSURE SENSORS TESTING**
- ⇒ **LEAK TESTER**

RVSM COMPILANT

The ADSE 754 caters fully for **all aircraft types** and the different electrical power supplies.

It can be used for testing high performance **civil and military** aircraft, **fix and rotary wing**

The **multi-pressure outlets** option can suit the more complex pilot-static-systems.

This Pitot Static Tester is designed primarily for flightline use to cover the testing of all barometric and manometric pressure instrument systems.

The **large touch screen display**, with on-screen help, enables all checks to be carried out easily on the flight deck or in the cockpit, by a single operator.

The Test Set is robust and housed in a **mobile weatherproof case** fitted with **tyre wheels**.

An attached bag contains the pressure hoses and electrical cables.

Accessories to suit specific applications may be supplied.

ADSE 745

Main Features

- Built-in pressure and vacuum pumps
- Liquid crystal colour display with touch sensitive screen for operator instructions/help
- Remote control unit based on Windows XP tablet PC
- Complete self check of set before use
- High accuracy, high resolution
- **RVSM compliant**
- Programmable leak test
- **Programmable flight envelope** to protect equipment under test
- All four primary flight parameters displayed simultaneously
- **Programmable** (password write protected) **test schedules** – 24 programmes available
- Selectable pressure units : hPa; mb; in Hg; mmHg; ft; m; kts; km/h, ft/min; hm/min and Mach number

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TESTEUR PITOT / STATIC

ADSE 745

RVSM COMPLIANT

General details

Temperature range	Operating -10˚ to 50˚C
Power supply	110/240V,50 to 400 Hz AC, 150VA
Case:	Completely weatherproof,meets EMC requirements - MIL STD 462D
Physical:	320mm x 270mm x 715mm (case) 440mm x 420mm x 715mm (overall) 32 kg (71 lbs)
Calibration:	Recommended period 12 months
Ease of Use	Remote touch screen Wheeled case for manoeuvrability Integrated bag for cables and hoses
Ease of maintenance:	Modular design permitting ease of accessibility to mechanical assemblies and electronic components

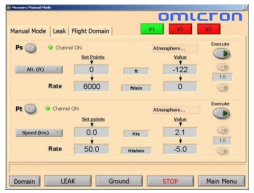
Optional

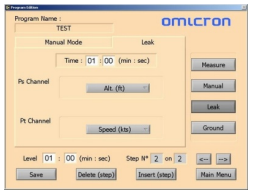
- Multi-pressure outlet (3 Ps & 3 Pt) variant
- Power supply : 17 to 32V DC
- Rechargeable 24V nickel-cadmiun battery pack (1,5h)
- Higher vacuum unit for up to 15,000ft/min and 80,000ft
- Specific Pt sensor for best airspeed accuracy for helicopter
- Integrated screen for UAV use
- Remote Control Software for PC (Windows 2000 & XP)

Measurement specification

Function	Range	Accuracy (1)
Altitude:	-2,300 to 60,000ft	±3ft at 0ft ±8ft at 30,000ft ±32ft at 60,000ft
	-700 to 18,000m	±1m at 0m ±2.5m at 9,000m ±10m at 18,000m
Altitude rate:	Up to ±6,000ft/min	±1%
	max.±2,000m/min	±1%
Indicated airspeed:	10 to 800kts	±2kt at 50kts ±0.14kt at 500kts ±0.07kt at 800kts
	20 to 1480km/h	±3km/h at 100km/h ±0.26km/h at 900km/h ±0.13km/h at 1480km/h
Mach No:	0.1 to 4.0 Mach	±0.002M at 0,8M/25,000ft ±0.004M at 1,7M/30,000ft
Static sensor	30 to 1200 mbar	0,01% FS (1)
Pitot sensor	30 to 3000 mbar	0,01% FS (1)

(1) linearity + repeatability + hysteresis at ambiant +10° to +40°C
x 1,5 for -10° to +50°C
x 0,5 for ±2°C lab use





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