

Vacuum Toilet Assembly Test Bench

The Vacuum Toilet Assembly B003 test bench is designed for MRO maintenance stations looking for a test solution to treat the aircraft toilets fitted on the Boeing B747 (CMM 38-30-14 & 38-30-20) and B767 (CMM 38-30-20), as well as the B737-800 Rinse Valves (CMM 38-31-04).

It is used to carry out functional tests of the Toilet Assembly under different conditions of use (voltage, vacuum...)

To this end, the test bench has a vacuum port connected to a 900-litre tank to collect the water evacuated during the tests. This suction circuit is powered by a vacuum pump (integrated into the bench) with automatic adjustment of the vacuum level from the bench's HMI. The 'Water Supply' port on the test bench is used both to adjust the water supply pressure to the equipment and to measure the instantaneous flow rate. It is also possible to use this port to drain and air-dry the circuits of the equipment under test. Adjustment of the equipment supply voltage and measurement of the current drawn are also integrated into the bench, and all the measurements listed below are displayed on a touch-sensitive HMI.

The bench also has a slot for the *Vacuum Toilet Electrical Test Fixture P/N 7800103*. This equipment (not supplied) is used to operate the equipment and launch the CMM's actuation sequences.

With its test area integrated into the console and its simple, accessible ergonomics, our B003 bench is a complete test solution for your MRO workshop.



KEY STRENGTHS

- Turnkey test solution including collection tank
- Automatic adjustment of the suction level
- Test area integrated into the bench

USES

X	MRO
	R&D test
	Calibration
	Production
	Other

KEY WORDS

- Aircraft Vacuum Toilet Assembly
- CMM 38-30-14 ; 38-30-15 ; 38-30-20 ; 38-31-04

TECHNICAL SPECIFICATIONS

Vacuum Toilet Assembly

CMM 38-30-14 B747 ENVIROVAC

- P/N 7900061 - P/N 7900061

CMM 38-30-15 B 767 ZODIAC AIRCRAFT SYSTEMS

- P/N 7900063 - P/N 7900064 - P/N 7900065

- P/N 7900065

CMM 38-30-20 B747 MONOGRAM

- P/N 7900101 - P/N 7900102 - P/N 7900253-101

- P/N 7900253-102

Rinse Water Valve

CMM 38-31-04 B737-800 & CRJ200 MONOGRAM

- P/N 7800001-008

Vacuum Toilet Assembly / Section "Testing and Fault Isolation"

- Normal & Jammed Cycle Test
- Rinse Valve Performance Test
- Rinse Water spray pattern Test
- Leakage Test

Rinse Water Valve / Section "Testing and Fault Isolation"

- Internal Leakage
- Elec. Operation / High pressure Pull-in
- Elec. Operation / Low pressure Drop out
- Differential pressure versus flow
- Pressure Tests

- Mounting brackets with drip tray (for Toilet Assembly)
- Removable mounting bracket (for RINSE VALVE)
- DN50 corrugated hose with flexible sleeve (VACUUM Port)
- AS33514 female tooling with AIR/WATER selector valve (Rinse Valve Inlet Port)
- Connection to test case P/N 7800103 via cables [not supplied].

- Test case P/N 7900103* integrated into the bench
- Manual activation of equipment via toggles and push-buttons
- Automatic sequencing of flush/rinse actuations

(*) Vacuum Toilet Electrical Test Fixture / tools not supplied

Test range: 0 ... 35 VDC

Setting: Manual

Resolution: < ±0.1 VDC

Flow

Measurement range: 3 ... 23L/min

Precision : Class 2.5 VDI

Type: Float flow meter / Visual reading

Pressure	Water Inlet	Vacuum Port
Measurement range:	0 ... 10barG	0 ... -1000mbarG
Precision:	< 0.25% FS	< 0.25% FS

Current

Measurement range: 0 ... 3A

Precision: < ± 0.01A

Test range: -100 ... -810 mbarG (-3.0 ... -24 inHg)

Setting: Automatic

Stability: < 10 mbar (0.3 inHg)

Collection tank: 900L vertical tank with level detector (approx. 700L useful)

Tank drain: Manual valve

Vacuum supply : Vacuum pump integrated into the bench (40m³/h nominal)

Test capacity

Tests performed

Equipment connection

Equipment management

Equipment power supply

Measurement chains

Suction port (VACUUM SUPPLY)

TECHNICAL SPECIFICATIONS

Port WATER SUPPLY	Fluid: Water or Air (<i>selection via valve on INLET connection tooling</i>) Test range: 0 ... 90 PSI Setting: Manual
HMI	<ul style="list-style-type: none"> - PLC with 10.4" touch screen - Water Inlet Port" pressure display - Vacuum Port" setpoint input and vacuum measurement display - Display of the current consumed by the equipment - Collection tank level feedback
Power supply	<ul style="list-style-type: none"> - Mains supply 400V 50 Hz 16A 3P+N+T - Connection via cable (3m) with 5-pin industrial plug * (*) Legrand Hypra or equivalent on request
Pneumatic power supply	Compressed air network 5 to 7 bar / DN4 mini Staubli RBE06 end connection
Water supply	City water network 2 to 6 bar Connection to BSPP1/2" F valve at bench inlet
Evacuation network	Drain connected to sewer / DN50 minimum BSPP1"1/4 F elbow connection located 10cm from the floor
Dimensions	Control desk: 1600 x 850 x 1800 mm (W x D x H) Tank: Ø800 x H2150 mm
Operating temperature	+10 à +40°C
Storage temperature	+5 à +50°C
Mass	Control desk: < 150kg Tank: < 200kg



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