Test Stand For Outflow Valves

>POVM4NM<

Preadapted UUT Example

Accessory and Mounting Trolley

The test stand is developed to test the outflow valves (OFV) for their pneumatic characteristics according to ATA Chapter 21.

It is possible to adapt this test stand to other aircraft types.

- In order to protect the user, tests are carried out in a divisible test chamber with automatic interlock, to be opened or closed via spindle-type lifting gear
- With open cover, the test area is easily accessible. If the cover is closed, an optical inspection of the test procedure is possible due to the observation window and a lamp
- Central, ergonomic operation via a flexible, adjustable panel with swivel arm
- Extensive range of measuring equipment (digital scale, torque key, caliper rule, bar code scanner, inclination sensors, cable measuring box) and additionally installed measuring instruments in the test stand (bonding tester and insulation test device)

GENERAL INFORMATION

- Easy operation and quick calibration via the TEST-FUCHS standard software
- One compressed air supply and one single electrical connection are enough to sufficiently supply the test stand - all UUT supplies are integrated, no additional hydraulic or cooling water connection is necessary
- The valves can be mounted on adapter plates with quick release latches for easy mounting and reduced set-up times (parallel to test operation, the next UUT can already be adapted)
- Drawer storage trolley for proper storage of the test cables and adaption parts, also useable as mounting trolley
- Stable design of the test stand due to welded steel frames
- Transport with fork lift truck (fork lift access points are integrated in the base frame)
- Excellent access for maintenance or calibration tasks through doors and a special arrangement of the system parts inside

OPERATION AREA

Description	P/N	Spec. No.	CMM
Boeing 787 Outflow Valve (OFV)	7000059H01	PVA-7000059H01 Rev. Oct.05	21-38-15 Rev. 9
A380 Outflow Valve	21826-02	PVA-21826-02 Rev. C	21-39-21 Rev. 1
Cabin Outflow Valve Boeing 747	719201-2 719201-3 719201-4 719201-5 719201-6 719201-7 719201-8 719201-9 719201-10 719201-11 719201-12	HS3950 Rev. E	21-31-03 Rev. 26 Gage Code: 73030
Outflow Valve 787-9			

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TECHNICAL DATA

> Pneumatic supply (requirements):

Supply pressure:	6 to 8bar (87 to 116psi)
Flow:	at least 200g/s (0.44lb/s)
Air quality:	ISO 8573-1 ISO Code 1-4-2

Supply purity (according to ISO 8573-1):

Solid state:	Class 1
Oil:	Class 1 (<0.01mg/m³)
Humidity:	Class 3 (Pressure dew point under -15°C (+5°F))
Wire cross section:	2"

> Electrical supply (requirements):

Mains connection:	3/N/PE AC 50Hz 400V
Performance:	approx. 17kVA
Nominal current:	max. 25A
Control voltage:	24VDC
Preliminary fuse:	32A GL (mains line)

> Operating conditions:

Operating temperature:	15 to 35°C (59 to 95°F)
Storage temperature:	0 to 60°C (32 to 140°F)
Height:	to 1,000m (3,280ft) over MSL
Rel. air humidity:	5 to 95% (non-condensing)
Installation:	in a non-explosive area
Permanent noise emission:	max. 96.2dB(A) in 1m (39.4in) distance

> Dimensions and weight:

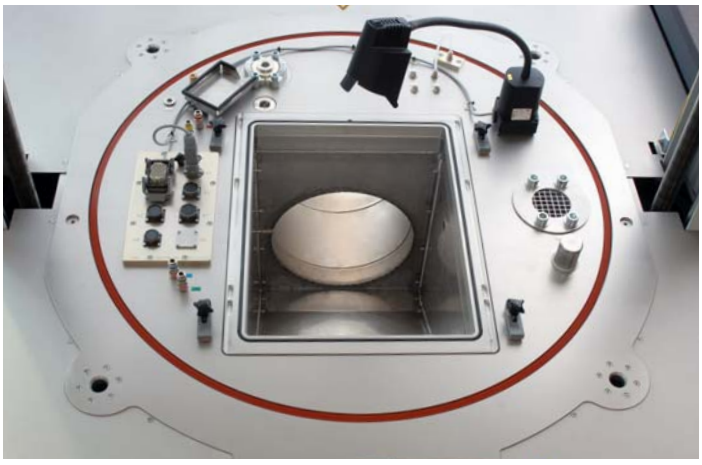
Test stand:

Length:	approx. 3,530mm (140in)
Depth (with exhaust pipe):	approx. 1,820mm (71.7in)
Height (cover closed):	approx. 2,000mm(78.7in)
Height (cover opened):	approx. 2,440mm (96in)
Weight:	approx. 1,750kg (3,860lb)

Switch and measuring cabinet:

Length:	approx. 1,540mm (60.6in)
Depth:	approx. 720mm (28.3in)
Height:	approx. 2,170mm (85.4in)
Weight:	approx. 425kg (937lb)

Closed and locked Test Chamber


Test Area inside the Test Chamber

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TECHNICAL DATA

> **Measurements:**

Pressure:	
(1 off)	800 to 1,200mbar (11.6 to 17.4psi) ±1mbar (0.015psi)
(1 off)	0 to 1.2bar (0 to 17.4psi) ±0.1% o.f.s.
(1 off)	0 to 2.5bar (0 to 36.3psi) ±0.1% o.f.s.
(1 off)	0 to 6bar (0 to 87psi) ±0.25% o.m.r.
(1 off)	0 to 10bar (0 to 145psi) ±0.25% o.f.s.
Torque:	
(1 off)	0 to 22.6Nm (0 to 200lbfin) ±1Nm (8.85lbfin)
(1 off)	-11.3 to +11.3Nm (-100 to +100lbfin) ±1% o.f.s.
Flow:	
(1 off)	0 to 4kg/min (0 to 8.81lb/min) ±2% o.f.s.
(1 off)	0 to 7.3kg/min (0 to 161lb/min) ±3% o.f.s.
Inclination:	
(4 off)	0 to 360° ±0.4°

Temperature:	
(1 off)	-20 to +80°C (-4 to 176°F) ±1°C (1.8°F)
(3 off)	0 to 40°C (32 to 140°F) ±1°C (1.8°F)
Air humidity:	
(1 off)	0 to 100% ±5%
Voltage:	
(1 off)	0 to 500V ±0.5% o.f.s.
(1 off)	-60 to +60V ±0.15% o.f.s.
(3 off)	0 to 15V ±0.15% o.f.s.
(1 off)	0 to 5.2V ±0.15% o.f.s.
(1 off)	0 to 10VAC ±0.5% o.m.r.
(1 off)	0 to 125VAC ±0.5% o.m.r.
(1 off)	0 to 250VAC ±0.5% o.m.r.
Current:	
(1 off)	0 to 0.005mA ±0.5% o.f.s.
(1 off)	0 to 0.05mA ±0.5% o.f.s.
(1 off)	0 to 0.5mA ±0.5% o.f.s.
(1 off)	0 to 5mA ±0.5% o.f.s.
(1 off)	0 to 5A ±0.25% o.f.s.
(1 off)	0 to 10AAC ±0.5% o.m.r.
Frequency:	
(1 off)	0 to 500Hz ±0.1Hz

Flexibly adjustable Operating Panel with Swivel Arm

Additional Measuring Instruments (Scale, Sliding Caliper, Inclination Sensors, Bar Code Sensor)

OPTIONS

A wide range of options is available to fulfil our customers´ requirements.
e.g.: Adaption for numerous UUTs, requirement to the test program, dimensioning,...

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Technical data are subject to change!