

ATB-50/100/200 Silencer Test Bench



Note: product may differ from image – silencer not included

Via Newton 1e
S. Giovanni in P. (BO)
40017 Italy
Tel. +39 051 827178
Fax +39 051 6875620

Joachimstr. 72
45309 Essen
Germany
Tel. +49 201 555969
Fax +49 201 555979


**BASTRA
ENGINEERING**
web site: www.bastra.com
e-mail: info@bastra.com

ATB-50/100/200 Specifications

Hardware units:

Display Unit*:
Processing Unit*:

Printing Unit*:
Acoustic Unit*:

Backpressure Unit*:

(*) specifications might change or on request

Software ATB V.4.x:

Guided user interface (GUI) with:

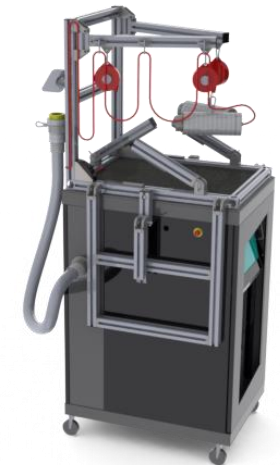
- Calibration and Signal-check module
- Measurement control module
- Analysis modules
- Data-basing
- Plot and printing report
- Data exporting (.txt)
- Sound Power Module

General specifications:

Dimension:
Weight*:
Test diameters *:

Test object length/weight:
Ambient conditions:
Compliance:
Shipping:

TFT 17" KVM or Touch
Intel, 2GB RAM, 250GB HDD
DVD-ROM, Ethernet 100Mb/s
MS-Windows W7
HP Inkjet
Frequency range:
70-2300Hz or 50-1400Hz
Accuracy: ± 1.5 dB (MSE)
200-10mbar; 10-600kg/h;
Accuracy: $\sim 3\%$ (FS)



2000x900x900mm
 ~ 205 kg (total)
 $\varnothing 15-40$ mm (ATB-30)
 $\varnothing 40-70$ mm (ATB-50)
 $\varnothing 70-130$ mm (ATB-100)
 $\varnothing 130-250$ mm (ATB-200)
<4000mm / <50kg
Temp.: 5-40°, Humidity: <90%
CE
assembled turn-key, COD

ATB-50/100/200

What is it for?

The ATB test bench measures the Transmission Loss (TL) and the Backpressure (BP) of complete exhaust and intake systems for 4- and 2-wheeler, like automobiles, trucks, motorcycles, scooters, ATV, UTV and others.

The Acoustic Attenuation vs. Frequency (described by the TL) is an indicator for the acoustic characteristic of the silencer system. The Efficiency and Quality of the silencers sound emission can be measured and evaluated.

The Backpressure vs. massflow gives information about the flow resistance inside the silencer, which is directly related to the pressure loss and the power of combustion engines.

Additional functions like the:

- Sound Power vs. rpm
- Sound Pressure vs. rpm
- Insertion Loss vs. rpm
- Hot flow Backpressure vs. rpm
- Leak flow vs. pressure



offer to the user a wide range of evaluation tools.

The ATB can be used in the Design Process of silencers, as well as for the Quality Control in the Production.

Costs of prototyping and vehicle testing can be significantly reduced by integrating the ATB into the development process.



Note: silencer is not part of the product



ATB-50/100/200

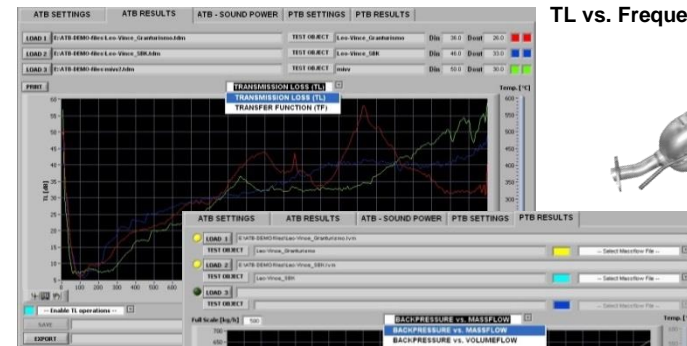
How does it work?

Just easy like that: place the silencer on the bench, connect the hosts to the silencer and start the measurement guided by the ATB user GUI software.

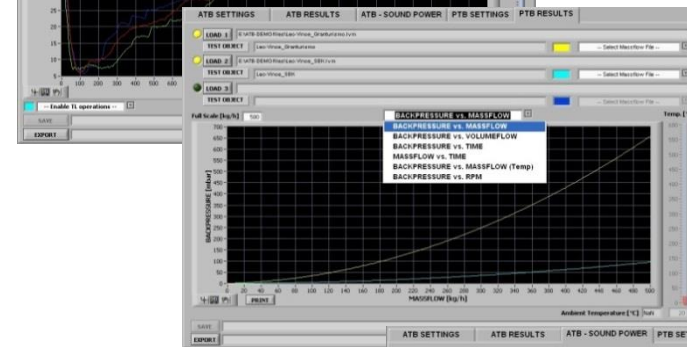
“everything is done in few minutes - from set-up to display of the result”



TL vs. Frequency



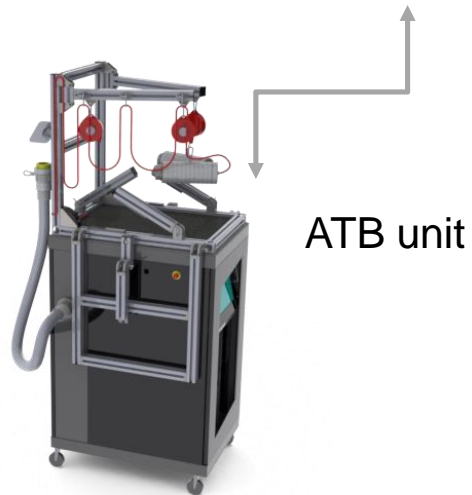
Back Pressure vs. Massflow vs. Volume flow, Hot Back Pressure vs. RPM



Sound Power, Sound Level, Insertion Loss



PTB-200 Flow Test Bench



PTB-200 Specifications

General description:

Flow test bench for measurement of backpressure vs. massflow rate.
The PTB-200 unit will be controlled by the ATB unit.

Application example: intake systems, silencer, filter systems and air conditioning

General specifications:

Dimension:	2000x1000x1400mm
Weight*:	~250kg (total)
Test diameters*:	Ø100-250mm
Flow-rate, pressure* (max.):	PTB-200/2: <2000kg/h, 45mbar (<Ø150mm) PTB-200/4: <4000kg/h, 65mbar (<Ø200mm) PTB-200/6: <6000kg/h, 65mbar (<Ø250mm)
Power supply*:	400VAC-50Hz-3-phase PTB-200/2: 5.5kW PTB-200/4: 7.5kW PTB-200/6: 11kW
Ambient conditions:	Temp.: 5-40°, Humidity: <90%
Noise:	<88dB @ 1.5m
Compliance:	CE
Shipping:	assembled turn-key, COD

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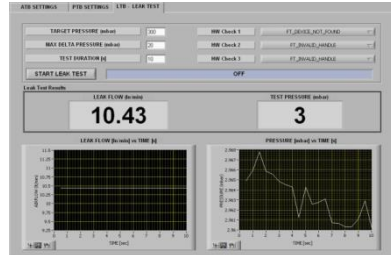

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LTB-50 Leak Test Bench



LTB-50

ATB unit



example images only

LTB-50 Specifications

General description:

The LTB-50 is a Leak Tester device for measurement of leak volume rates at constant pressure.

The Leak Tester works with industrial pressure supply of 4-12bar (ISO 8573-1).

The leak flow rate of the test object will be measured at constant pressure for a selectable range of 100-500mbar.

The measurement procedure is completely controlled by a firmware interface of the ATB Test bench.

General specifications:

Work pressure*:	4-12bar
Test pressure*:	100-500mbar
Flow-rate*:	0.1-50ln/min
Measurement accuracy* (FS):	Flow: 1.5%, Pressure: 2.5%
Power supply*:	24VDC or 230VAC-50Hz
Ambient conditions:	Temp.: 5-40°, Humidity: <90%
Compliance:	CE
Shipping:	assembled turn-key, COD

(*) specifications might change or on request

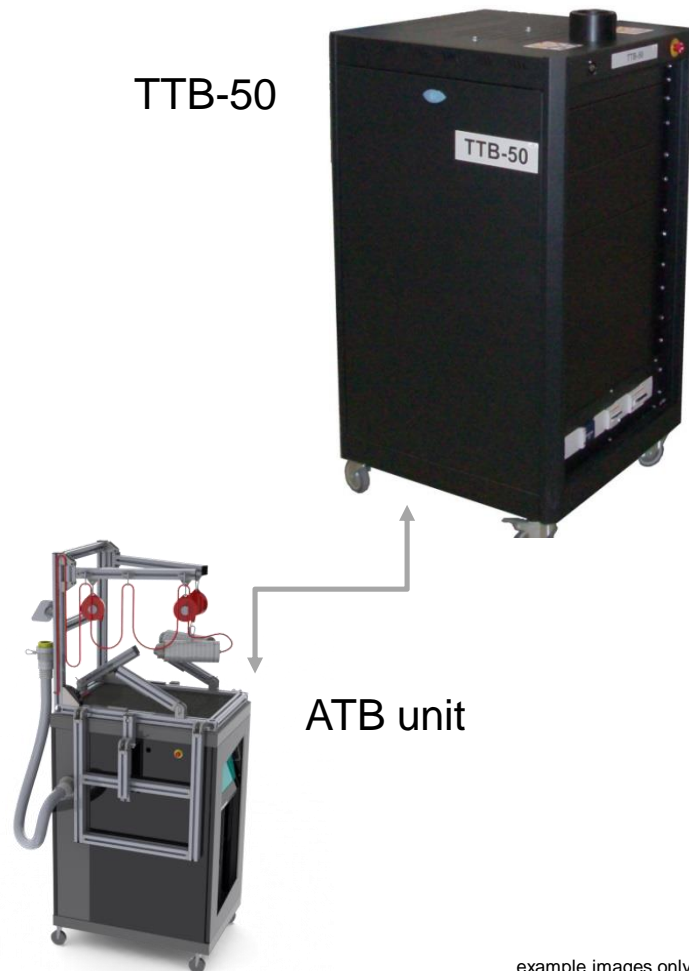
Via Newton 1e
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TTB-50

Throttlebody Test Bench



example images only

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TTB-50

Specifications

General description:

Flow test bench for vacuum flow generation with pressures of -500mbar at 5kg/h. The TTB-50 will keep the pressure drop constant while flow rates may change between 0-5kg/h. The test bench will be controlled by the ATB unit.

Application example: Throttle body, EFI, carburetor and valve devices

General specifications:

Dimension:	1400x600x800mm
Weight*:	~300kg (total)
Test diameters*:	Ø40-70mm
Pressure/Flow-rate*:	-500mbar/5kg/h
Measurement accuracy* (FS):	Pressure: 1.0%, Flow: 1.5%
Power supply*:	400VAC-50Hz-3-phase TTB-50: 3kW
Ambient conditions:	Temp.: 5-40°, Humidity: <90%
Noise:	<80dB @ 1.0m
Compliance:	CE
Shipping:	assembled turn-key, COD

(*) specifications might change or on request

ATB-50/100/200 Test Bench Platform



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ATB-50/100/200 References



Mahindra



Eberspächer



Via Newton 1e
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