

# VLT BRAKE DATA® 2004/6 MODULES

## VLT Brake Data® 2004/6 time measurement

**DEVELOPED FOR THE BRAKE SPECIALIST, BUT AVAILABLE TODAY FOR EVERYONE WHO IS RESPONSIBLE FOR VEHICLE TESTING**

Measuring and analysing test data is becoming a full days work for many engineers working in the automotive world. Storing of all this data is more and more common.

Data which is required can be consulted or re-printed at all times.

VLT Brake Data® 2004/6 is available in different modules just for storing the test results of cars, light goods vehicles and buses. For these vehicles which mainly have no large difference in unladen and laden condition, we offer the VLT Brake Data® 2004/6 Windows, a simple solution giving all the information you need.

For those vehicles which have a greater difference in unladen and laden weight, like heavy goods vehicles, trailers, etc. we have the VLT Brake Data® 2004/6 Corridor Windows. This program measures the brake efficiency as tested normally unladen.

The air pressure in the brake cylinder is measured at the locking point of the wheelbrakes. The axle weight is stored and the computer makes the calculation from the measured values still in unladen condition of the vehicle. But we also need to calculate the brake efficiency in laden condition without having the vehicle laden.

This calculation is made by the computer by extrapolation of the air pressure value mostly up to 6 BAR = 85 PSI. At this point we calculate the relation between the air pressure at unladen weight in the brake cylinders at 6 BAR.

The computer calculates the total available brake force divided by the gross vehicle weight. This is the total weight of the vehicle in fully laden condition. The outcome is the brake efficiency in percentage of the gross vehicle weight.

Brake Data® Corridor Windows can do this per

Windows, for cars, light goods vehicles and buses;

- VLT 5405 VLT Brake Data® 2004/6 Corridor Windows, for heavy goods vehicles, trailers, etc.;
- VLT 5407 VLT Brake Data® 2004/6 Windows, storing and dataprocessing, view only;
- VLT 5423 VLT Brake Data® 2004/6 Windows, network version, 2 client licences, for cars, light goods vehicles and buses;
- VLT 5424 VLT Brake Data® 2004/6 Windows, network version, additional client licence.

Many other versions available, including special versions for different countries.

axle separately or the sum of all the axles. The program has a number of so called "Corridors" given by government authorities on vehicle manufacturing. The program also gives the engineer the possibility to create its own "Corridors". In Europe we have a number of EU corridors and by selecting one of these corridors the program will draw up automatically around these lines. This all means that the 'harmonization' can be achieved far more easily, quickly and more accurately. If testing semi-trailers, the so called K-factor is automatically calculated and taken into account by the program. There is no other way to achieve this information in such a short time and in such an easy way.

Another VLT program is VLT Brake Data® 2004/6 Time 4.0 Windows. This module contains VLT software and hardware including a PCB card for installation in the PC. Here we have a very important aspect and we call this measuring the time which is involved in rising and/or falling of the air pressure in the entire brake system.

Especially for trucks/trailers with multi axles this is a very important safety item.

VLT offers these tools to measure rising time and falling time in the system in milli-seconds. Simple and quick vice versa by using the standard air pressure transmitter as we use for air pressure measurement during the brake test.

The VLT program can take up to 10 transmitters at the same time. The results are presented in seconds in graphic form displayed on the monitor or in print; even a print-out in table form can be printed. This makes it easy to compare the results with the legal requirements.

Available are:  
VLT 5403 VLT Brake Data® 2004/6

Welkom bij VLT Test Systems

R.2.4.7.V VLT Test Equipment 17-May-2004 09:39

VEHICLE DATA Reg. 1096429/01 T. 12345

TYPE	TRAILER	REG. NO.	REG. DATE	REG. STATE	REG. COUNTRY
TRAILER	31-12-1997	31-12-1997	31-12-1997	31-12-1997	31-12-1997

BRAKE TEST (Options: X=Dataproc., (d)=lock)

AXLE	WEIGHT	EFFICIENCY	REFERENCE
FRONT AXLE 1	Left(%) Right	Left(%) Right	Reference Result
Actual weight status	11780 kg 10860 kg	22640 kg	58.5
Brake force	11780 N 10860 N	22640 N	---
Imbalance	11780 N 10860 N	22640 N	20.5
Brake f. at 6 bar	11780 N 10860 N	22640 N	---
Brake f. at 1 bar	4270 N 4120 N	8390 N	---
Wind	430 N 450 N	1080 N	2.5
Quality	1 1	1	20.5

Air Pressure System Cylinder

WEIGHT	EFFICIENCY	REFERENCE
Make up Pressure	0.4 Bar 0.4 Bar	0.4 Bar 0.4 Bar
Peak - 0.2bar	6.1 Bar 6.1 Bar	5.9 Bar 5.9 Bar

REAR AXLE 2

WEIGHT	EFFICIENCY	REFERENCE
Actual weight status	12920 kg 10320 kg	23240 kg
Brake force	12920 N 10320 N	23240 N
Imbalance	12920 N 10320 N	23240 N
Brake f. at 6 bar	12920 N 10320 N	23240 N
Brake f. at 1 bar	460 N 50 N	510 N
Wind	40 N 50 N	90 N
Quality	1 1	1

Air Pressure System Cylinder

WEIGHT	EFFICIENCY	REFERENCE
Make up Pressure	0.4 Bar 0.4 Bar	0.4 Bar 0.4 Bar
Peak - 0.2bar	6.7 Bar 6.7 Bar	7.9 Bar 7.9 Bar

REAR BRAKE 3

WEIGHT	EFFICIENCY	REFERENCE
Actual weight status	13020 kg 10320 kg	23340 kg
Brake force	13020 N 10320 N	23340 N
Imbalance	13020 N 10320 N	23340 N
Brake f. at 6 bar	13020 N 10320 N	23340 N
Brake f. at 1 bar	460 N 50 N	510 N
Wind	40 N 50 N	90 N
Quality	1 1	1

Air Pressure System Cylinder

WEIGHT	EFFICIENCY	REFERENCE
Make up Pressure	0.4 Bar 0.4 Bar	0.4 Bar 0.4 Bar
Peak - 0.2bar	6.3 Bar 6.3 Bar	7.9 Bar 7.9 Bar

TOTAL

WEIGHT	EFFICIENCY	REFERENCE
Actual vehicle weight	13987 kg 7045 kg	21032 kg
Reference brake	44400 N 30210 N	74610 N
Hand brake	21390 N 22820 N	44210 N
Overall result	10.1	12.5

\*) Meetsende statische remverdeling  
\*) Meetsende verbruikt op deze en de volgende van ADM naar gemeten.

Hartelijk dank voor uw bezoek. Tot een volgende keer.

Trailer(Scania)3-as trailer(GP-82)

printed report, text part

Welkom bij VLT Test Systems

R.2.4.7.V VLT Test Equipment 17-May-2004 09:39

DATASHEET Progressie in bar Per-Modulatie in bar Reg. 1096429/01 T. 12345

TRAILER

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Quality	1 1	1

Air Pressure System Cylinder

WEIGHT	EFFICIENCY	REFERENCE
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REAR BRAKE 3

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Air Pressure System Cylinder

WEIGHT	EFFICIENCY	REFERENCE
Make up Pressure	0.4 Bar 0.4 Bar	0.4 Bar 0.4 Bar
Peak - 0.2bar	6.3 Bar 6.3 Bar	7.9 Bar 7.9 Bar

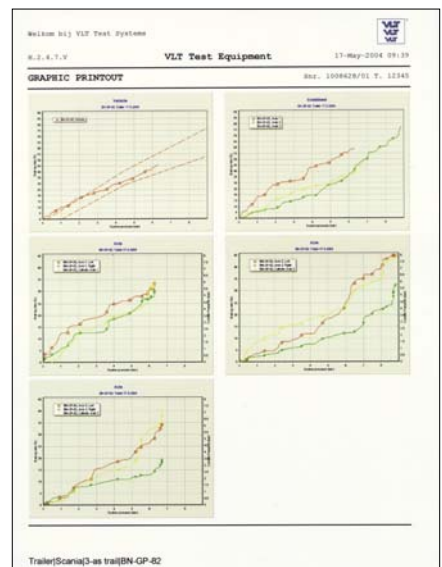
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printed report, data sheet



printed report, graphs overview

