

# VLT'S INTELLIGENT TEST LANE CONCEPT



VLT, a world-wide specialist in the field of vehicle testing, has introduced its Intelligent Test Lane Concept in 1995 and is continuously updating this concept, whereby Test Lanes are created for testing trucks, trailers, buses, cars and motor cycles.

The main features of Test Lanes created with this concept are:

- short testing times, thereby enabling a large throughput of vehicles;
- objective, operator independent test results on most test items;
- accurate measurements;
- a large set of clear user instructions is displayed, which allows the owner/ driver to stay in the vehicle during the test, thus saving manpower;
- a wide selection of different test equipment for integration is available;
- a large number of settings, threshold values and standards can be accessed directly and edited by the user;
- the modular setup allows a complete variety of Test Lane configurations;
- easily upgradable by adding more test equipment items per lane;
- easily expandable by adding more Test Lanes;
- integration of Test Lanes on remote sites is possible;
- link up to Government database and remote access possibilities where applicable.

The open structure of both hard- and software allows an easy integration of future test equipment and an easy adaption of the system to customers (future) wishes.

The following equipment items are available in VLT's Test Lane concept:

- Vehicle Identification Station;
- Sideslip (=Alignment) Tester;
- Road Contact Suspension Tester;
- Brake Tester (for motor cycles combined with clamping device);
- Boogie (=free) Rollers;
- Speedometer Tester/Taxi Meter Tester/Speed Warning Device Tester/Aircon Tester;
- Chassis Dynamometer Smoke Tester;
- Noise Level Tester;
- Emission Tester for petrol engines;
- Diesel Smoke Tester for diesel engines;
- Above Carriage Inspection Panel;
- Fully automated Headlight Beam Tester;
- Vehicle Position Monitor;
- Play Detector;
- Under Carriage Inspection Panel(s);
- Height Adjustable Floor Pit Lift;
- Test Result printer, Certificate Printer;
- Barrier, Traffic Light, Public Address, Closed Circuit TV and monitor systems;
- ...and more.



Station	Vehicle	Start	End	Status
01	01-01-01	08:00:00	08:05:00	OK
02	02-02-02	08:05:00	08:10:00	OK
03	03-03-03	08:10:00	08:15:00	OK
04	04-04-04	08:15:00	08:20:00	OK
05	05-05-05	08:20:00	08:25:00	OK
06	06-06-06	08:25:00	08:30:00	OK
07	07-07-07	08:30:00	08:35:00	OK
08	08-08-08	08:35:00	08:40:00	OK
09	09-09-09	08:40:00	08:45:00	OK
10	10-10-10	08:45:00	08:50:00	OK
11	11-11-11	08:50:00	08:55:00	OK
12	12-12-12	08:55:00	09:00:00	OK



# VEHICLE INSPECTION STATION



## UNIQUE VLT FULLY INTEGRATED VEHICLE TEST LANE CONCEPT

### Why unique?

- The VLT Integrated Vehicle Test Lane works fully paperless
- Has a Vehicle Tracking System, this means the System handles three or more Vehicles at the same time in one lane and keeps the data and results of each Vehicle separate.
- VLT makes use of one Single Test Lane Computer per Test Lane
- Only one time Vehicle Data input, mostly only registration number is all you have to put in. The remaining data is retrieved from the Station Server Database.
- Unknown New Vehicles of the Database can be easily created by Menu on the Entry Console and/or on Reception.
- Pass or Fail decision is made by the Computer System, no human influence on vital inspections, like Brakes, Suspension, etc. etc.
- Very easy RETEST facilities, The VLT System knows the FAIL items of the previous inspection and commands the Vehicle straight to the selected Equipment(s). Time saving for every one, Operator and Vehicle owner as well.
- If Vehicle FAILS, a Full Test Report is printed out and gives the repair workshop all relevant information for repair and/or adjustment.
- If Vehicle PASSES, a Vehicle Fitness Certificate can be printed, or if required a Window Sticker can be produced, or even your own special system can be adopted.
- VLT Develops, configures, manufactures, installs and hands over the entire Vehicle Testing System less or more as Turn-Key, including User and Maintenance training by VLT's own engineers, even All-In Maintenance and Repair over 5 to 10 years period can be contracted out to VLT.
- VLT has it's own Software Engineering Department for Machine controlling Embedded Software and it's PC – Server application Software Development Department.
- Special Above- and Undercarriage inspection systems are developed by VLT, using special Membrane key-boards and/or Touch Screen Monitors.
- VLT makes your own ideas work! You tell us what you want, we make it.
- VLT Test Lanes are known for extreme low maintenance and repair cost, this results in high availability of your Test Lane to serve your customers.



**Van Leeuwen Test Systems B.V.**

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**CHASSIS DYNAMOMETER**  
Tandem model



This model Chassis Dynamometer can test vehicles with a maximum axle weight of 14000 kg for a single axle.

The combined weight of a tandem axle set can be 24000 kg.

**FREEROLLER SET**



A Freeroller Set is used in combination with a

Brake Tester or a Speedometer Tester, for testing vehicles with driven tandem axles.

A hydraulic lifting system and roller brakes are installed for easy driving in/out/over the rollersets.

**ROLLER BRAKE TESTER**



The Roller Brake Testers for heavy vehicles are available

with all rollers at the same level, or with the rear rollers raised. All rollersets are constructed for very intensive use and minimum required maintenance.

**PRINTER CONSOLE(S)**



Still the fastest way in printing of the Test report and the fitness certificate on the Lane end. Test reports, are made fully in line with your wishes by data coming from the Test Lane Computer. Alternative window stickers or similar items can be printed at this station.

**EMISSION and DIESEL SMOKE TESTERS**

The VLT 4588/MK2 Emission Tester and VLT 4590/MK2 Diesel Smoke Tester comply with the latest standards. Both units have 6 clear 4-digit LED displays. The Emission Tester measures CO, HC, CO<sub>2</sub>, O<sub>2</sub>, Lambda value. The Diesel Smoke Tester measures the opacity of the exhaust gases.



Both units can be placed in one trolley.

**CHASSIS DYNAMOMETER, light model**

This model Chassis Dynamometer can test vehicles with a maximum axle weight of 6000 kg.



**ROLLER BRAKE TESTER**

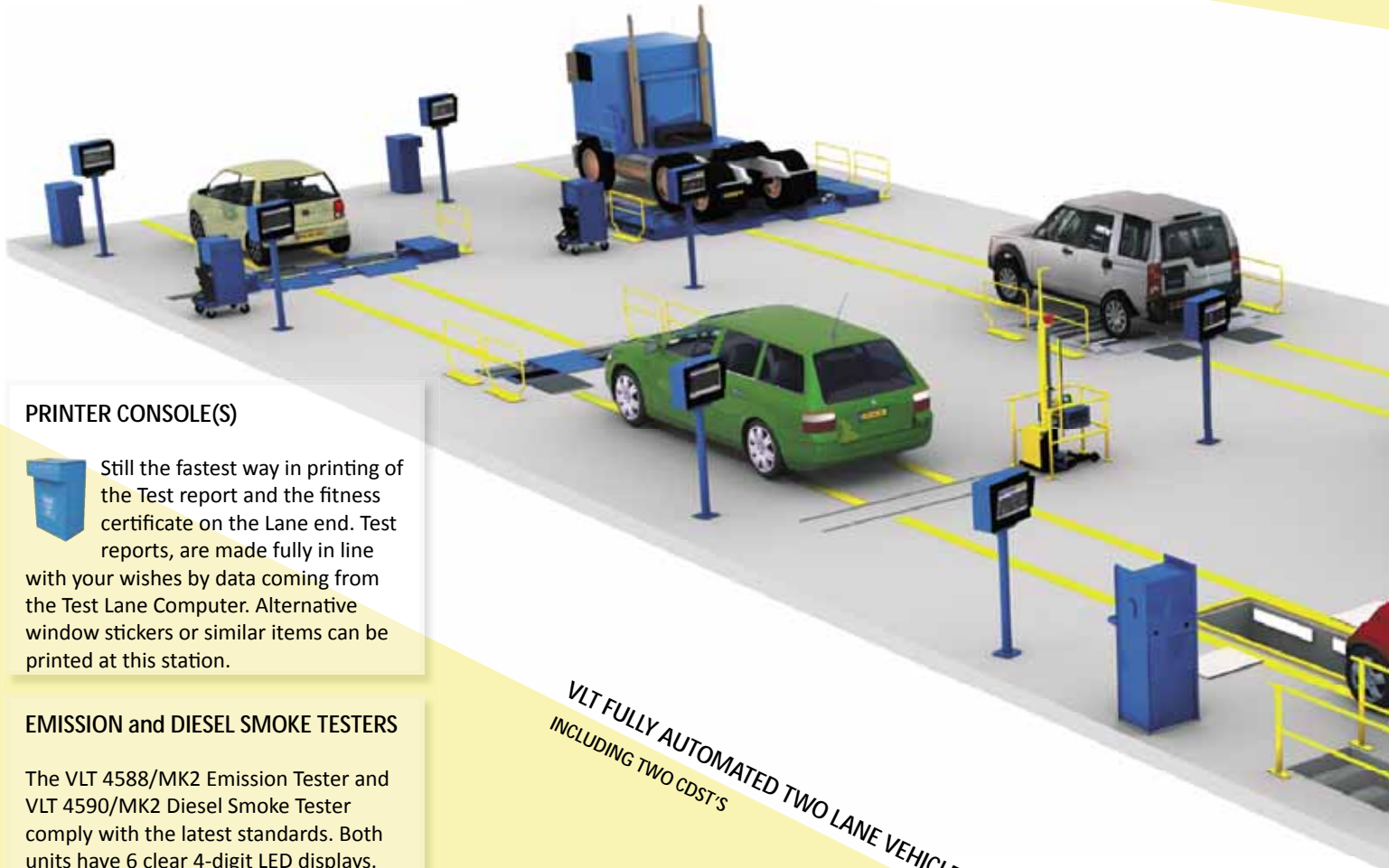
This Roller Brake Tester has motor driven rollers (integrated electric motor and gearbox). This results in a very compact rollerset.

VLT uses the most accurate brakeforce strain gauges available on the market. The rollers are coated with an abrasive grit to emulate a road surface and last for many years.



**SUSPENSION TESTER**

The VLT Suspension Testers operate according to the well-known EUSAMA principle. However, the diagnostic options are not restricted to the contents of this specification. In addition to the usual road contact values, the following values are also measured and displayed: the contact value difference, resonance frequency and wheel weight at minimum contact value, tyre pressure value, wheel weight and axle weight.



*VLT FULLY AUTOMATED TWO LANE VEHICLE STATION INCLUDING TWO CDST'S*

## SIDESLIP TESTER



The VLT Sideslip Testers are very robust and require minimal maintenance. They can be equipped with drive-in and/or drive-out

sensors to assist the automatic vehicle tracking system in the test lane. An optional rigid counter plate guarantees a correct and accurate measurement. The maximum drive-over weight of the Sideslip Tester for heavy vehicles is 10000 kg each wheel.

## HEADBEAM TESTER

Our VLT CCD camera Head Beam Tester is available from fully automated to manual. But all models send their data to the Test Lane Computer. The top model controls, by using a Vehicle Position Scanner, the Vehicle position in front of the Head Beam Tester. Ask for more information on the different models.



## TESTLANE ENTRY CONSOLE

The Test Lane Entry Console is the place to enter Vehicle data or select it from the Server and is the beginning of a Vehicle inspection. There is a choice of standard keyboard or a VLT membrane keyboard, both with mouse. The monitor can be standard or with Touchscreen. Above Carriage Inspection can be integrated in the Entry Console or can be set up by its own 86 keys special VLT keyboard (this still the fastest way of inspection).



## CARS AND UNIVERSAL / HEAVY GOODS VEHICLE LANE WITH CDST TESTERS.

Stage 1 Entry Console for selecting from Vehicle Data of Server or creates new Vehicle.

Under Carriage Visual Inspection.

Play Detector (installed over inspection pit)

Stage 2 Above Carriage Visual Inspection.

Head Beam Tester

Stage 3 Alignment Test

Suspension Test (Road Condition Test) with Protection on Heavy Lane.

Roller Brake Tester (Including Applied electrical Hand brake Test at Light Lane.)

Stage 4 Chassis Dynamometer Light Vehicles with Option Speedometer/Taximeter

Chassis Dynamometer All kind of Vehicles with Option Speedometer/Taximeter

Diesel Smoke Testing on Chassis Dynamometer or Free Acceleration Test

Emission Test for Petrol Driven Vehicles and Alternatively Powered

Stage 5 Printing Test Report

Printing Fitness Certificate

## SIDESLIP TESTER

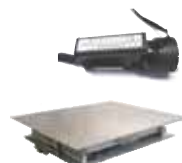
The VLT Sideslip Testers are very robust and require minimal maintenance. They can be equipped with drive-in and/or drive-out sensors to assist the Automatic Vehicle Tracking System in the test lane. An optional rigid counter plate guarantees a correct and accurate measurement.

The maximum drive-over weight of the Sideslip Tester for light vehicles is 5000 kg each wheel.



## PLAY DETECTOR

VLT Play Detectors are operated by means of a handheld lamp with built-in remote control unit. Different movements of the plates are available and can be selected and activated with the remote control.



# VLT, YOUR SOLUTION PROVIDER

VLT as Solution Provider on Vehicle Testing Systems from design into Turn-key Vehicle Test Stations. Fully handled by our own employees on different levels from Cad design to Machine Tooling, Welding, Assembling, Software and Hardware development. Nearly everything is handled by VLT and if not, we select only the prime suppliers for the best quality products and components. In close co-operation with our customers we design new testing facilities: the equipment is installed, in many cases by our own VLT engineers, including commissioning and training worldwide.

We as VLT are proud of our products, customers and our loyal employees, which lead to the best solutions! Let our customers speak to you! What counts for all of us is a good relationship between our customers and VLT as supplier, we know that we as VLT are sometimes, but not always, slightly more expensive at the date of purchase, simple we deliver you what you need, no additional cost later. But from that date onwards you will save on lower Maintenance and repair due to robust design and keen solutions. Easily to update and definitely over a period of 5 to 10 years very competitive in comparison

with our competitors. VLT can offer you full maintenance, calibration service in ALL – IN contracts, All-in means including all spare parts. You know exactly your daily cost, we offer your this contract for 5 year / 8 and 10 years. Even 8 years + 7 years we offer. No competitor can beat VLT in this, all due to extreme High quality.

VLT will be your best choice! Speak with our customers, they are the best possible promotion for us! VLT guaranteed you the lowest cost per Vehicle tested.

VLT Partner in Vehicle Testing.

