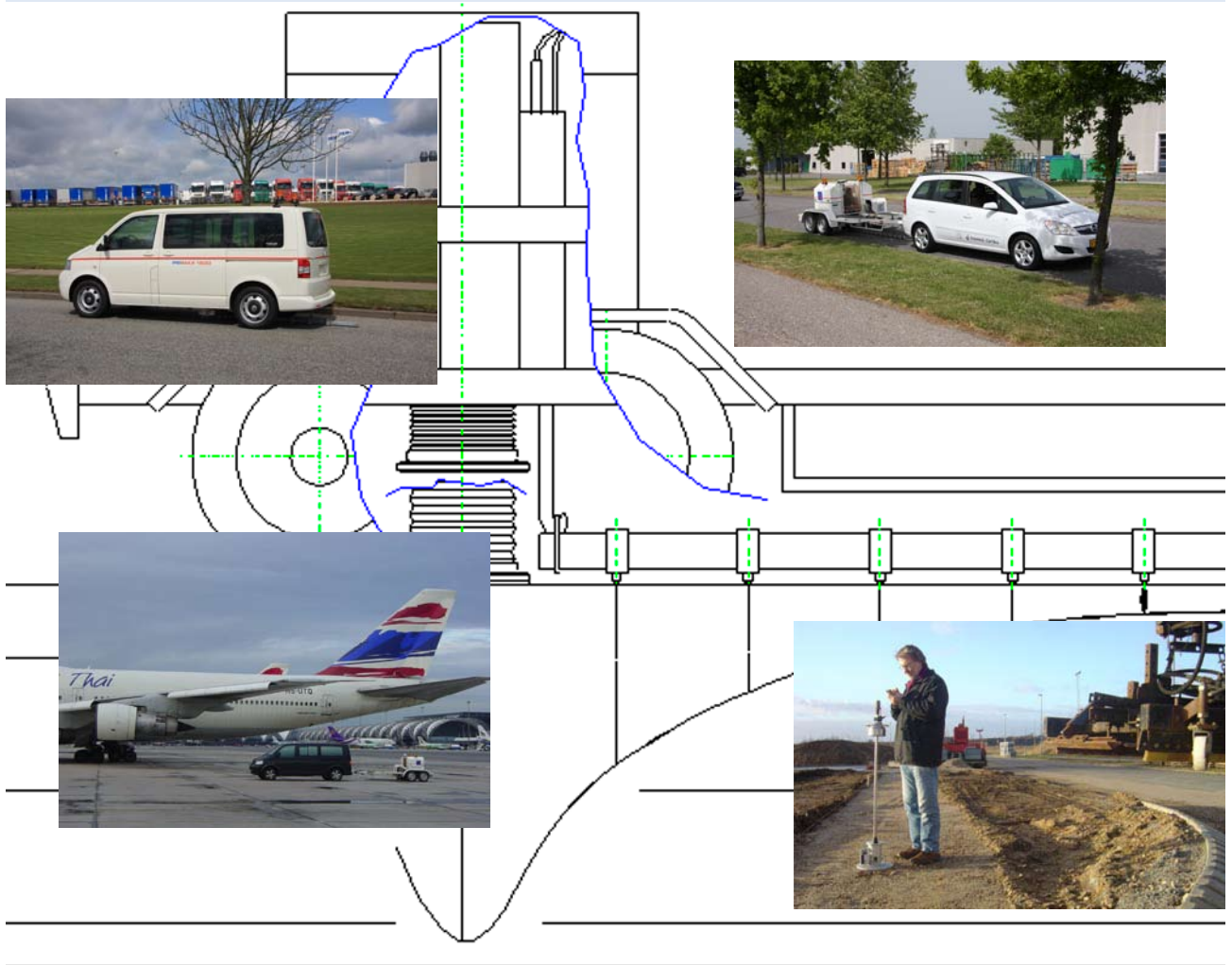


PRIMAX FWD HWD SHWD - PRIMA LWD



Grontmij | Carl Bro Pavement Consultants is a world-leading supplier of equipment as well as software within the field of road surveying and management. Our range of falling weight deflectometers is known under the names of PRIMAX and PRIMA 100 and in 1969 Carl Bro Pavement Consultants delivered the world's first falling weight deflectometer. Ever since, we have attached great importance to development and improvement in order to supply state-for-the-art equipment to the benefit of our clients and their projects.

Falling Weight Deflectometers from Grontmij | Carl Bro

Unique possibilities with the traditional FWD equipment from Grontmij | Carl Bro: The modular principle means that there is no need for investment in new equipment if the demands on the equipment change. All that is necessary to upgrade the equipment from a standard 7-150 kN FWD, 7-250 kN HWD to a 7-300 kN Super Heavy Weight Deflectometer (SHWD) is to add more weights, a larger load cell and upgrade software. The trailer-mounted FWD can also be integrated in a van without having to invest in new basic measuring equipment.

Like all FWD equipment from Grontmij | Carl Bro the standard trailer-mounted FWD is supplied with personal computer, Windows FWD software, time history module, transport lock, DMI (Distance Meter Indicator) integrated in the software, three temperature sensors, four-split loading plate, 9 geophones and warning lights. Additional functions can easily be added such as video or marking equipment, GPS (Geographic Positioning System), which enables presentation of data in maps or general plans of site.

Today, Grontmij | Carl Bro Pavement Consultants offers a complete package – road management system, FWD and LWD equipment, forward- and back-calculation systems, video surveying systems and laser profilers.

[PRIMAX FWD trailer - the classic solution](#)

The PRIMAX FWD trailer is the classic and flexible solution from Grontmij | Carl Bro. Mounted on a double-axle trailer, it is independent of the towing vehicle and can be towed by any vehicle. The only cable connecting the trailer with the towing vehicle is the PC computer cable. The operator controls all FWD functions from the PC, which is placed in the towing vehicle. This makes the measuring work simple and easy and only one operator is needed for the work.

[PRIMAX SHWD - both as trailer and van-integrated](#)

The PRIMAX-S SHFWD is a flexible solution from Grontmij | Carl Bro for measurements on pavements subjected to really heavy traffic such as Boeing 777 or Airbus 380 aircrafts. We supply this both as trailer-mounted and van-integrated - a flexible solution always adaptable to customers' needs. The operator controls all FWD functions from the PC, which is placed in the towing vehicle. This makes the measu-

ring work simple and easy and only one operator is needed.

[PRIMAX FWD Van-integrated:](#)

The van-integrated PRIMAX FWD from Grontmij | Carl Bro is the solution when the equipment is used daily or very frequently. It is well-suited for measuring in towns and densely populated areas, areas with a heavy traffic load or in areas where safe, accurate and quick manoeuvre is required, such as airports and when measuring concrete plates. The van-integrated FWD equipment may be driven at normal driving pace and the clear and good view from the van while testing offers optimum road safety time while operating manually.

[PRIMA100 LWD - Quick and easy quality assurance](#)

Using the portable falling weight deflectometer, PRIMA100, is the quickest, easiest and most safe way to determine bearing capacity and assure unbound layer quality. PRIMA100 measures the surface modulus and presents the results immediately allowing decisions to be made on site.

[Unique PRIMA 100 features](#)

Direct measuring of the E modulus. PRIMA100 is the only portable falling weight deflectometer with a separate load cell. This allows measuring on all layers irrespective of strength, as the

drop height is adjustable. The PRIMA100 method is quicker than the isotope measuring method and requires no reference measurements. The equipment has no radioactive sources requiring safety courses and can be operated by one operator, who will have the possibility of analysing collected data and printing out data files on site. PRIMA100 can be supplied with GPS allowing storage of measuring positions and data in GIS databases.

[Data presentation/documentation](#)

After a measuring campaign or any time during a campaign, data can be seen on the display. Either each individual drop or the entire series of measuring points is displayed. Data can be transferred to Excel or Word. This allows printing of data for further interpretation or direct presentation in a report as documentation towards e.g. a client.

[PRIMA DESIGN - back-calculation software](#)

The Grontmij | Carl Bro Design programs are full Windows versions. PRIMA DESIGN is supplied as a package and is specially designed for treatment of deflection data from LWD measurements.



Super Heavy Weight deflectometer van-integrated